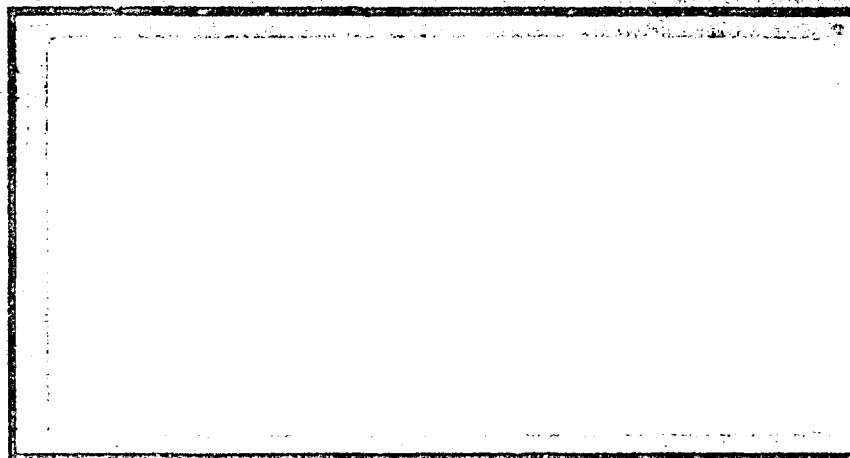
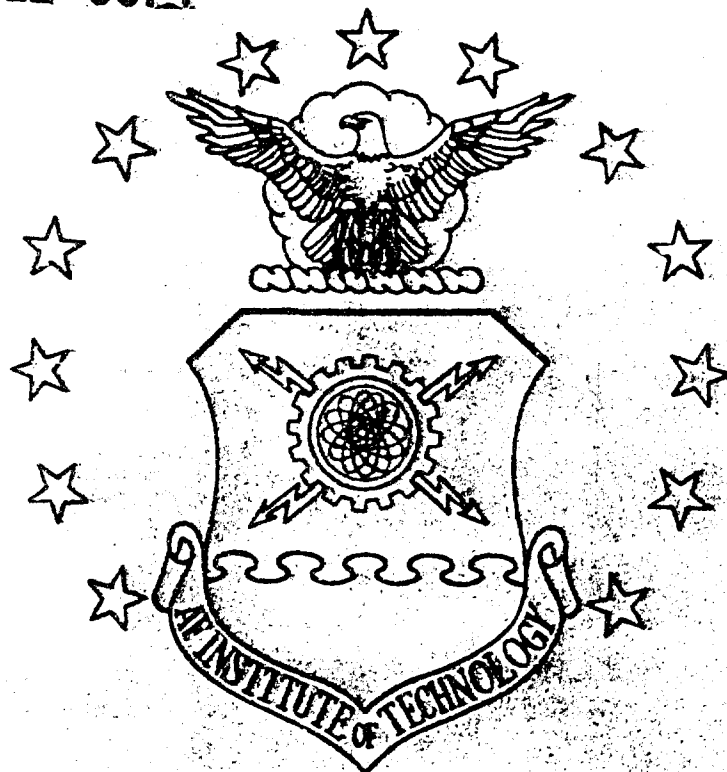


DTIC FILE COPY

2

AD-A229 463



DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY

AIR FORCE INSTITUTE OF TECHNOLOGY

DTIC
ELECTE
DEC 12 1990
S E D

Wright-Patterson Air Force Base, Ohio

DISTRIBUTION STATEMENT A

Approved for public release:

90 12 12 019

AFIT/GLM/LSY/90S-47

IDENTIFICATION, SELECTION, AND
TRAINING OF HEADQUARTERS
AIR FORCE LOGISTICS COMMAND
ACQUISITION PROGRAM MANAGERS

THESIS

Francis A. Rupp, Captain, USAF

AFIT/GLM/LSY/90S-47

1990

Approved for public release; distribution unlimited

The opinions and conclusions in this paper are those of the author and are not intended to represent the official position of the DOD, USAF, or any other government agency.

| | |
|--------------------|-------------------------------------|
| Accession For | |
| NTIS GRA&I | <input checked="" type="checkbox"/> |
| DTIC TAB | <input type="checkbox"/> |
| Unannounced | <input type="checkbox"/> |
| Justification | |
| By | |
| Distribution/ | |
| Availability Codes | |
| Dist | Avail and/or Special |
| A-1 | |



AFIT/GLM/LSY/90S-47

IDENTIFICATION, SELECTION, AND TRAINING OF
HEADQUARTERS AIR FORCE LOGISTICS COMMAND
ACQUISITION PROGRAM MANAGERS

THESIS

Presented to the Faculty of the School of Systems and
Logistics of the Air Force Institute of Technology
Air University
In Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Logistics Management

Francis A. Rupp, B.S.
Captain, USAF

September 1990

Approved for public release; distribution unlimited

Acknowledgments

Any extensive research effort is only successfully completed because others have selflessly agreed to cooperate with the researcher, and my situation is no exception. First and foremost, I'd like to thank my faculty advisor, Professor Brett Andrews, for all his guidance and subtle "corrections for the wind." He was a rare find, in that he was able to understand and bridge the gap between AFSC and AFLC philosophies. I'd also like to thank Col Al Ramroth, LMSC Vice Commander, for putting me in touch with the LMSC program managers, and for encouraging his people to participate in the research effort. Lt Col Gil Mayeux, also of the LMSC, was instrumental in providing detailed information about the program management approach employed at the LMSC, and for his help I am grateful. Special thanks go to Lt Col Ozzie Swett of AFLC's Acquisition Logistics Division for allowing me to use his office space and equipment. Quite literally, I wouldn't have been able to accomplish the effort without his assistance. The cost of midnight oil alone would have been prohibitive.

Francis A. Rupp

Table of Contents

| | Page |
|---|------|
| Preface | ii |
| List of Tables | v |
| Abstract | viii |
| I. Introduction | 1 |
| Specific Problem | 3 |
| Investigative Questions | 3 |
| Definitions | 5 |
| Scope and Limitations | 7 |
| II. Literature Review | 10 |
| Introduction | 10 |
| The Defense Management Report | 11 |
| Department of Defense Directives and Air Force Regulations | 13 |
| Air Force Regulations and AFLC Program Management Policy | 17 |
| The Need for Improved Management of Modification Programs | 24 |
| A Review of AFLC Training of Air Force Officers | 26 |
| Review of Past AFIT Graduate Theses | 27 |
| Conclusion | 28 |
| III. Methodology | 30 |
| Introduction | 30 |
| Data Collection: Investigative Questions #1 and #2 | 30 |
| Data Collection: Investigative Questions #3 and #4 | 31 |
| Data Collection: Investigative Questions #5, #6, and #7 | 35 |
| Populations of Interest | 37 |
| IV. Results | 42 |
| Introduction | 42 |
| Survey Results | 42 |
| Interview Results | 98 |

| | Page |
|--|------|
| V. Summary and Recommendations | 117 |
| Introduction | 117 |
| Summary | 117 |
| Investigative Question #1 | 117 |
| Investigative Question #2 | 119 |
| Investigative Question #3 | 121 |
| Investigative Question #4 | 123 |
| Investigative Question #5 | 127 |
| Investigative Question #6 | 128 |
| Investigative Question #7 | 130 |
| Recommendations | 132 |
| Conclusion | 133 |
| Appendix A: Survey Cover Letter and Questions | 135 |
| Appendix B: Interview Cover Letter and Questions | 147 |
| Bibliography | 152 |
| Vita | 155 |

List of Tables

| Table | | Page |
|-------|--|------|
| 1. | Modification Classifications | 19 |
| 2. | An Example of Scale Used in the Survey | 33 |
| 3. | LMSC Program Manager and Deputy Program Manager Positions | 38 |
| 4. | Senior AFLC Individuals Selected for Interview Request | 40 |
| 5. | Demographic Information | 43 |
| 6. | Formal Education Level | 44 |
| 7. | Respondents in Acquisition Program Management Positions | 47 |
| 8. | Time in Current Position - Civilian and Military Personnel | 48 |
| 9. | Present Job Series Classifications/Air Force Specialty Codes | 49 |
| 10. | Personnel Supervised & Size of Program Office | 50 |
| 11. | Previous Job Series Classifications/Air Force Specialty Codes | 51 |
| 12. | Prior Acquisition Program Office Experience | 54 |
| 13. | Prior Acquisition Program Office Positions Held (Civilians) | 55 |
| 14. | Prior Acquisition Program Office Positions Held (Military) | 56 |
| 15. | Level of Previous Assignments | 56 |
| 16. | Experience in Acquisition and Logistical Functional Areas | 59 |
| 17. | Experience in Logistics Disciplines | 60 |

| Table | | Page |
|-------|--|------|
| 18. | Respondents with No Experience in Listed Logistics Disciplines | 61 |
| 19. | Formal Training Applicable to Acquisition Program Management | 62 |
| 20. | Respondents Receiving Applicable Formal Training | 64 |
| 21. | Total Responses to Survey Question #18 | 66 |
| 22. | Relative Importance of Expertise in Functional Areas | 72 |
| 23. | Standard Deviation as Measure of Level of Agreement | 74 |
| 24. | Levels of Agreement with Respect to Functional Areas | 77 |
| 25. | Comparison of Score and Level of Agreement Rankings | 78 |
| 26. | Total Responses to Survey Question #19 | 80 |
| 27. | Relative Importance of Expertise in Logistics Disciplines | 82 |
| 28. | Levels of Agreement with Respect to Logistics Disciplines | 83 |
| 29. | Score and Level of Agreement Rankings (Logistics Disciplines) | 83 |
| 30. | How Program Managers/Deputy Program Managers Were Selected | 84 |
| 31. | Qualified for PM/DPM Position - PM & DPM Perceptions | 88 |
| 32. | Not Qualified for PM/DPM Position - PM & DPM Perceptions | 91 |
| 33. | Position Held Prior to PM/DPM Assignment | 93 |
| 34. | Enhancing the Quality of AFLC Acquisition Program Managers | 95 |
| 35. | Improving the AFLC Acquisition Program Manager Selection Process | 97 |

| Table | | Page |
|-------|---|------|
| 36. | Other General Recommendations | 98 |
| 37. | Individuals Interviewed | 100 |
| 38. | The Need for AFLC Acquisition Program Managers | 102 |
| 39. | The Critical Need for Acquisition Program Managers | 103 |
| 40. | Additional Areas Requiring Program Management Expertise | 105 |
| 41. | Unique Requirements of AFLC Acquisition Program Managers | 106 |
| 42. | Previous Job Experience Requirements | 107 |
| 43. | Desired Formal Training | 109 |
| 44. | Formal Education Level | 110 |
| 45. | Comments on Experience, Training, or Education | 111 |
| 46. | The Established Identification and Selection Process | 113 |
| 47. | Civilian vs. Military Program Manager Positions | 114 |
| 48. | Recommendations for Improving the Current Process | 115 |

Abstract

This study investigated the identification, selection, and training process for Headquarters Air Force Logistics Command (HQ AFLC) acquisition program managers. The acquisition program managers of interest were located in HQ AFLC's Logistics Management Systems Center (LMSC). A literature search revealed these program managers are subject to several program management philosophies and policies. LMSC program managers were surveyed concerning their formal education, training, and job experience, and were asked about the perceived importance of expertise in certain program management functional areas. LMSC program managers were also asked about the current LMSC program manager identification and selection process. Several senior AFLC leaders were then interviewed and asked about the need for AFLC acquisition program managers; formal education, training, and job experience requirements for these program managers; and the program manager identification and selection process. The present process appears to be working well, but there is a need to provide formal training prior to program managers assuming their program management responsibilities. Acquisition professional career development initiatives resulting from the July 1989 Defense Management Review should improve the identification, selection, and training process.

IDENTIFICATION, SELECTION, AND TRAINING OF
HEADQUARTERS AIR FORCE LOGISTICS COMMAND
ACQUISITION PROGRAM MANAGERS

I. Introduction

As military weapons systems have increased in complexity over the years, the cost of procuring these systems has also increased. During the 1980s, however, Congress, in an attempt to limit the escalating acquisition costs of Department of Defense (DOD) weapons systems, and in response to increasing public concern about the high cost of new weapon systems, directed the DOD to conduct several reviews of the weapons system acquisition process. In 1985, the Packard Commission developed several initiatives aimed at improving and streamlining the process by which DOD buys its weapons systems. In 1986, the Goldwater-Nichols Defense Reorganization Act tasked DOD to take an even closer look at streamlining and improving the acquisition process (31:9).

Most recently, however, the President, in 1989, ordered a thorough review of the entire weapon systems acquisition process. This formal review is known as the Defense Management Review, or DMR, and is aimed at saving \$30 billion over five years (9:1). One important decision submitted as a DMR initiative is the establishment of a dedicated acquisition

corps for military and civilians, with both training and education opportunities (11:1). In addition, each uniformed service was to develop and implement formal career development programs for its acquisition professionals, tailored to the requirements of that particular service.

Within the United States Air Force (USAF), three commands were identified as "Acquisition Commands": Air Force Systems Command (AFSC), Air Force Logistics Command (AFLC), and Air Force Communications Command (AFCC). Because these three commands each have unique acquisition requirements resulting from the different types of systems they each acquire, the acquisition personnel within each command also have unique requirements. In as much as formal DOD and USAF-wide acquisition professional career development programs will focus on those needs common to all acquisition professionals, within the USAF each command with an acquisition mission must also develop an acquisition professional career development program which focuses on the specific requirements unique to that acquisition command.

As an acquisition command, AFLC is responsible for managing (1) the acquisition of various computer based information systems, (2) major modifications to existing weapon systems, and (3) other selected acquisition programs. Within AFLC, these acquisition and modification programs are managed primarily by the Logistics Management Systems Center (LMSC) at AFLC HQ (computer based information systems

acquisition programs) and the Air Logistics Centers (major modification programs).

For this reason, AFLC must develop and implement a formal career development program for its acquisition program managers which concentrates on the unique requirements of AFLC acquisition program management, while also satisfying the requirements of the DOD acquisition professional development program.

Specific Problem

This study will investigate the education, training, and work experience of current HQ AFLC acquisition program managers and deputy program managers at the LMSC, and will, based on the findings, recommend methods of formally identifying, selecting, and training military and civilian personnel to be acquisition program managers within HQ AFLC.

The tentative hypothesis is that AFLC has not developed formal criteria for identifying, selecting, and training acquisition program managers for HQ AFLC-managed acquisition programs. The following investigative questions will be used.

Investigative Questions

- 1) What has been the AFLC approach to the acquisition program management process, and how does that compare to the AFSC approach to the acquisition program management process?

- 2) Which acquisition programs are managed by AFLC and, more specifically, which of these programs are managed by HQ AFLC program managers at the LMSC?
- 3) Who are the program managers and deputy program managers for these HQ AFLC programs, and (a) what formal education have these program managers and deputy program managers received, (b) what types of acquisition program management training have these individuals received, and (c) what past job experience do these program managers have in acquisition and logistics functional areas?
- 4) Based on their experience as HQ AFLC acquisition program managers, (a) what is the perceived importance by these program managers of knowledge of, or experience in, specific acquisition and logistics functional areas, and (b) what additional education, training, and job experience do these individuals believe would make them more qualified to serve as program managers?
- 5) What assignment experience, formal training, and education do the senior leaders in AFLC consider important for AFLC acquisition program managers?
- 6) What is the current process for identifying and selecting HQ AFLC program managers, how does this compare to the AFSC program manager selection process, and why do differences, if any, exist?

- 7) What initiatives are currently in work within AFLC to (a) meet the unique needs of AFLC acquisition program managers, (b) ensure that the best qualified individuals are selected as acquisition program managers, and (c) meet the requirements of the DMR in terms of establishing a dedicated acquisition corps for military and civilian personnel?

Definitions

For the purposes of answering the Investigative Questions above, certain terms must be further defined as follows.

1. AFLC Acquisition Program Manager: the one individual who has program management responsibility for the acquisition of new systems or equipment, to include modification programs. For purposes of this research, this does not include those individuals responsible for the day-to-day management of fielded systems or equipment for which Program Management Responsibility Transfer has occurred.
2. Acquisition Functional Areas: primary functional areas of expertise in an acquisition program; the building blocks of an acquisition program. For purposes of this research, the acquisition functional areas are identified as Acquisition Planning, Contracting, Systems Engineering, Software

Development, Logistics Support Analysis, Reliability & Maintainability, Test and Evaluation, Budget and Program Control, Configuration Management, Integrated Logistics Support, Program Management Responsibility Transfer, and Site Activation.

3. Logistics Functional Areas: functional areas of expertise possessed by logisticians in an acquisition program. For purposes of this research, the logistics functional areas are Depot Activation, Maintenance, Supply, and Transportation.
4. Logistics Disciplines: types of logistics support provided by Air Force logisticians. For purposes of this research, the logistics disciplines are Retail Logistics, Acquisition Logistics, International Logistics, Wholesale Logistics, and Combat Logistics. Retail Logistics is often referred to as base-level logistics support; Acquisition Logistics refers to the application of logistics support planning in an acquisition program; International Logistics is concerned with logistics support in the area of Security Assistance programs; Wholesale Logistics is often referred to as logistics support provided by AFLC Air Logistics Centers; and Combat Logistics deals with logistics support of combat units.

Scope and Limitations

This research is limited to an analysis of the identification, selection, and training of HQ AFLC acquisition program managers, specifically those acquisition program managers and deputy program managers assigned to the LMSC. Even though there are acquisition program managers in AFLC organizations other than the LMSC, the LMSC contains the largest number of acquisition program managers and deputy program managers involved with similar types of acquisition programs. That is, LMSC acquisition programs are focused primarily on the acquisition of computer based information systems.

This research does not address the identification, selection, and training of acquisition or modification program managers located at the AFLC Air Logistics Centers (ALCs). Although these program managers are responsible for the acquisition or modification of weapon systems, they are not the subject of this research.

For example, there are approximately 18 acquisition program managers and 10 deputy program managers assigned to the LMSC (24:1-7). However, the approximate number of acquisition or modification program managers assigned to each of the ALCs is as follows: Oklahoma City ALC, 1 acquisition program manager, 1 deputy program manager; Ogden ALC, 5 acquisition program managers, 2 modification program managers, 7 deputy program managers; San Antonio ALC, 1 acquisition

program manager, 1 deputy program manager; Sacramento ALC, 6 acquisition program managers, 6 deputy program managers; Warner Robins ALC, 10 acquisition program managers, 10 deputy program managers (22:1-2).

Although this research will discuss the importance of, knowledge of, or experience in, certain acquisition and logistics functional areas as perceived by LMSC acquisition program managers and deputy program managers, this research will not attempt to develop a formal training course or training course outline for LMSC or AFLC acquisition program managers.

This research does not address any measure of "effectiveness" or quality of performance of HQ AFLC acquisition program managers, nor does it discuss similar quantitative measurements of the current process of identifying, selecting, and training HQ AFLC acquisition program managers. Rather, this research attempts to identify strengths and weaknesses of the current process as viewed by HQ AFLC acquisition program managers and deputy program managers.

Furthermore, although this research will discuss different perceptions held by both civilian and military acquisition program managers and deputy program managers, this research will not address any "civilian versus military program manager" issues in terms of overall program manager effectiveness or performance.

Finally, although this research will occasionally refer to the AFSC Acquisition Professional Development Program, the research will not address the effectiveness or success of this AFSC program.

II. Literature Review

Introduction

This literature review provides the initial background information for an analysis of the identification, selection, and training of HQ AFLC acquisition program managers (PMs). AFLC PMs in general (that is, any acquisition PM in AFLC, not just at the Headquarters) may be either civilians or military personnel. Furthermore, these AFLC acquisition PMs may manage weapon system acquisition programs, other types of acquisition programs (such as communications and computer systems), or weapon system modification programs.

For purposes of this review, general references will often be made to the HQ AFLC acquisition PMs; that is, unless otherwise stated, the HQ AFLC acquisition PM will be either civilian or military, managing a program which fits into one of the three categories previously mentioned (weapon system acquisition, other acquisition, weapon system modification).

The review of literature for this research consisted of the Defense Management Report, Department of Defense Directives, Air Force Regulations, professional military journals and publications, and past AFIT theses. Even though the professional articles stressed the importance of proper management of AFLC programs, the formal training and education of acquisition managers was discussed almost exclusively within the context of AFSC. In addition, the discussions

concerning the formal training and education of AFLC military officers were confined primarily to the traditional logistics functions, and did not include areas related to acquisition program management.

The Defense Management Report

In February 1989 the Secretary of Defense was directed by the President to develop a plan to improve the defense procurement process and management of the Pentagon (17:1). The resulting Defense Management Report (DMR) to the President in July 1989 reemphasized the importance of several characteristics evident in some very successful commercial and government projects; these characteristics had initially been brought to light in 1986 in the President's Blue Ribbon Commission on Defense Management. This Commission, more frequently referred to as the Packard Commission, had made a number of recommendations detailed in the Packard Commission Report. The Packard Commission Report provided a number of recommendations, including the following defense acquisition process improvements (17:8).

- a. Clear Command Channels
- b. Program Stability
- c. Limited Reporting Requirements
- d. Communications with Users
- e. Better System Development
- f. Small, High Quality Staffs

This final characteristic, Small High Quality Staffs, indicates a reliance on small staffs of specially trained and highly motivated personnel (17:12). The DMR goes on to say that about 580,000 civilian and military personnel in DoD spend all or a substantial part of their workday in the acquisition field. Furthermore, the DMR broadly defines this acquisition field to include research, development, procurement, logistics, distribution, and other related activities.

Included among the DoD acquisition organizations are AFCC, AFSC, and AFLC, with AFSC and AFLC specifically referred to as "buying commands" (17:A-1). Furthermore, as of 31 December 1988, the acquisition workforce of AFSC was listed as 38,773 people (civilian and military) while the acquisition workforce of AFLC was listed as 89,785 people (civilian and military) (17:A-1).

The DMR cites a Packard Commission observation that "compared to its industry counterparts, this [DOD] workforce is undertrained, underpaid, and inexperienced" (17:12). The DMR stresses that whatever other changes may be made, it is vitally important to enhance the quality of the defense acquisition workforce--both by attracting qualified new personnel and by improving the training and motivation of current personnel (10:1).

The DMR recommended steps on the civilian side, the military side, and in general, to meet the above objectives.

One of the steps on the civilian side is that DoD will endeavor to make civilians' capabilities and career opportunities more competitive with counterparts in the private sector. The DMR was very specific.

"On the one hand, it is undeniably desirable that those who manage the acquisition system be highly attuned, through personal experience in the operational world, to the needs of military users. On the other hand, if these needs are to be met in the successful development of major systems, it is increasingly imperative that acquisition managers possess a range of technical skills and a breadth of experience largely unavailable in operational assignments...New means must therefore be found to develop and retain the variety of necessary acquisition skills in the military, while at the same time ensuring that development of weapon systems reflects keen regard for operational realities." (17:13)

The Secretaries of the Military Departments were to develop and submit plans for establishment of a dedicated corps of full time acquisition specialists in areas such as systems development, procurement, and logistics, and were to also submit recommendations concerning specialized educational requirements and training opportunities for this corps of acquisition officers (8:1).

In general, the DMR states that the Under Secretary of Defense/Acquisition will establish within his organization a central office to oversee the DoD-wide training, education, and career development policies concerning both civilian and military personnel (17:15).

Department of Defense Directives and Air Force Regulations

Department of Defense Directive Number 5000.1 (SUBJECT: Defense Acquisition Program Policies, Guidelines, and

Management Responsibilities) states that PMs will be selected by the DoD Component Heads, with the advice of the Service Acquisition Executives and Program Executive Officers. Furthermore, the PMs shall have responsibility for and authority over their major defense acquisition programs (16:12).

DODD 5000.1 dictates that the Head of each Military Department shall establish and maintain a separate acquisition corps of military and civilian professionals within the Component, and management training and career development and incentive programs to attract, retain, motivate and reward personnel occupying key acquisition management positions (16:25).

The above direction is more explicitly detailed in Department of Defense Directive Number 5000.23 (SUBJECT: System Acquisition Managemnt Careers). This Directive outlines specific standards for education, training, and experience, so that only the most highly qualified individuals fill PM and Deputy PM positions. The Directive identifies education, training, and experience requirements for the following positions: PM (Major Program)

PM (Non-major Program)

Deputy PM (Major or Non-major Program)

(18:2-4).

Air Force Regulation 800-1 (Acquisition Management, AIR FORCE ACQUISITION SYSTEM) implements DODD 5000.1. While

AFR 800-1 does not specifically list criteria to be used for the identification and selection of PMs, it does define the PM (also referred to as Program Director (PD) and System Program Manager (SPM)) as the individual vested with full authority, responsibility, and resources to execute an approved program on behalf of the Air Force. The PM/PD/SPM is accountable to the Program Executive Officer (7:4).

AFR 800-1 states that the Assistant Secretary of the Air Force for Acquisition (ASAF/A) has the responsibility to nominate (based on the acquisition command's nomination), together with the advice of the Air Force Chief of Staff, the PEOs and PDs for major and selected other programs to the Secretary of the Air Force. Because the procedure for nominating and selecting PMs for Non-major Programs is not specifically identified, it is incumbent upon the individual acquisition commands (AFSC, AFLC, AFCC) to carry out this particular responsibility (7:6). One additional responsibility of ASAF/A is to establish overall policy for and oversee the acquisition career professional development program referred to in (a) the DMR, (b) DODD 5000.1, and (c) DODD 5000.23.

In 1985, AFSC developed and implemented an acquisition management professional development program for its acquisition professionals. AFSC Regulation 36-5 (ACQUISITION MANAGEMENT PROFESSIONAL DEVELOPMENT) details a four-level certification process based upon levels of education,

specialty training, and experience (14:1-9). The basic objective of this program is to maximize the professional development and mission capability of the acquisition management officer force by establishing a "definitive and viable career management plan" that produces broad-based acquisition managers capable of assuming middle management and senior leadership roles (14:2).

It should be noted, however, that this particular career development program, as currently written, applies only to AFSC military personnel. Adapting this program to civilian personnel, or to AFLC acquisition managers, though, would not appear to be an extremely difficult task.

In addition, as a result of the DMR, work was initiated on DOD 5000.52-M (in draft as of 4 Apr 90), CAREER PROGRAM FOR ACQUISITION PERSONNEL. The purpose of the manual is to provide uniform procedures and policies for the DoD Acquisition Career Program for all military and civilian acquisition personnel.

Even though AFLC has not (as of 27 Feb 90) published formal guidance with respect to AFLC-peculiar aspects of acquisition management career development, the basic tenets of education, training, and experience can be used in developing criteria for the identification, selection, and training of HQ AFLC acquisition PMs. Furthermore, AFSC, in their Acquisition Management Professional Development Program, has already established a basic framework which AFLC could build upon.

Air Force Regulations and AFLC Program Management Policy

As a result of the DMR, the USAF has attempted to address most all acquisition program management policy in a 25 September 1989 revision to AFR 800-2, ACQUISITION PROGRAM MANAGEMENT. This regulation applies to all USAF acquisition and modification programs, to multiservice and multinational programs when the USAF is designated the lead service, and to communications-computer system acquisitions (6:1). The regulation does not apply, though, to base-level communications-computer systems projects governed by AFR 700-4, nor does it apply to science and technology programs governed by the AFR 80-series regulations.

Prior to the revised AFR 800-2, though, AFSC acquisition program managers traditionally received acquisition program management policy guidance from AFR 800-2, while AFLC acquisition program managers received program management policy guidance from any of several sources, depending on the type of program they were managing. As a result, it has been difficult to bring all AFLC acquisition program managers under one policy "umbrella." Furthermore, it has been difficult, if not impossible, to structure one all-encompassing process for the identification and selection of AFLC acquisition program managers.

One source of policy guidance for AFLC program managers has historically been AFR 57-4, MODIFICATION APPROVAL AND MANAGEMENT. This regulation applies to the processing of

modification requirements requirements for all USAF, Air Reserve Forces, and Security Assistance activities for which the USAF has logistics support responsibility (15:1). In describing the procedure for managing the modification, AFR 57-4 refers to the System Manager (the AFLC Air Logistics Center with management responsibility) in lieu of the term "program manager" when describing an organization headed by the individual with authority over the planning, directing, and controlling of functional tasks; tasks which may include research, development, procurement, production, materiel distribution, and logistics support (15:37).

In accordance with AFR 57-4, the AFLC acquisition program manager must be able to address the following program management areas:

- (1) Program management outline.
- (2) Acquisition strategy.
- (3) Operations and Maintenance concepts.
- (4) Logistics or materiel support provisions.
- (5) Overall weapon system impact.
- (6) Manpower, personnel, and training impact.
- (7) Summary of required development efforts and estimated completion dates.
- (8) Test and Evaluation, and recommended reports.
- (9) Other items as directed in the Program Management Directive, selected by the program manager, or bearing on the decisions (15:29).

In addition, the AFLC program manager has other specific responsibilities, depending on the particular type of modification (Class IA, IB, II, III, IVA, IVB, or V) (23:41). Table 1 below describes these different modification classifications.

TABLE 1
MODIFICATION CLASSIFICATIONS

| <u>Description</u> | <u>Classification</u> |
|--|-----------------------|
| A temporary removal of installed equipment and the removal is required to perform a temporary special mission. | Class IA |
| A temporary installation of, or change to, equipment to provide for increased capability for temporary special mission and AFLC-approved installation engineering is available to accomplish it, necessary equipment can be obtained from USAF stock without additional acquisition to replenish supply, and no technical data or logistics support are needed. | Class IB |
| The modification is temporary and required to support research, development, test, and evaluation (RDT&E) programs, demonstration and shakedown operations for ballistic missiles, or inservice testing of systems or equipment normally before a Class III, IV, or V mod, and the modification is needed under AFR 80-14 to conduct research and development testing or is needed to conduct operational test and evaluation. | Class II |

(continued on next page)

TABLE 1 (continued)
MODIFICATION CLASSIFICATIONS

| <u>Description</u> | <u>Classification</u> |
|---|-----------------------|
| The modification is temporary to validate group A and group B where group B requires no development, and program management responsibility transfer (PMRT) to AFLC has occurred and engineering evaluation or inservice testing is needed. | Class II |
| The modification is required to correct a test or service report revealed deficiency of a Class IV (A or B) mod and PMRT from AFSC to AFLC has not occurred. | Class III |
| The modification is to correct material or other deficiencies required to ensure safety of personnel, system, or equipment, and PMRT to AFLC has occurred and, if uncorrected, the hazard would ground the system or equipment, restrict flight or ground operations, or result in unacceptable risk to personnel. | Class IVA |
| The modification is to correct a service revealed deficiency that affects R&M, electromagnetic compatibility, or communications security, or improves reliability, maintainability, or logistics support, or reduces costs; and PMRT to AFLC has occurred and, if uncorrected, the deficiency would cause mission failures, impede the system or equipment mission accomplishment, or impede mission accomplishment of other systems or equipment within the defense or civilian community. | Class IVB |
| The modification is to provide a new or improved operational capability or to make permanent a Class IB modification, and the modification is needed to accomplish or enhance an assigned mission that cannot be accomplished with the present configuration. | Class V |
| The modification removes an existing capability to make permanent a Class IA modification, or to enhance operational safety. | Class V (15:5-6) |

A second source of program management policy guidance for the AFLC program manager may also be AFR 400-3, WEAPON SYSTEM PROGRAM MANAGEMENT. This regulation establishes the policies and procedures for management and support of weapon systems that have completed Program Management Responsibility Transfer (13:1). While this regulation does not specifically list functional responsibilities of the AFLC program manager with respect to acquisition, AFR 400-3 identifies the system program manager as the individual responsible for:

- (1) Acting as the single USAF focal point for management, engineering, and support of the assigned weapon system.
- (2) Managing the assigned weapon by developing and implementing logistics support programs to meet the operational requirements of the using command.
- (3) Making program management decisions which optimize weapon system performance, while considering cost, schedule, and supportability factors (13:5).

Compare this to paragraph 1-2 of AFR 800-2, ACQUISITION PROGRAM MANAGEMENT, which states, in part, that the program director or program manager is the individual who "must balance program cost, schedule, supportability, (and) performance ... within program constraints" (6:5). It is clear that the AFLC program manager must be knowledgeable in the many functional areas associated with acquisition program management.

It is interesting to note that AFR 400-3 requires HQ AFLC to establish system program management qualification and training requirements for system program managers and program office staff personnel. AFR 57-4 did not address this particular area of program management qualification and training.

A third source of policy guidance for some AFLC program managers is AFR 700-4, COMMUNICATIONS-COMPUTER SYSTEMS PROGRAM MANAGEMENT AND ACQUISITION. There are instances where AFLC is the acquiring command (12:17-20). In these instances, the AFLC acquisition program manager is responsible for obtaining, delivering, and supporting the resources needed to satisfy program requirements. The program management functions include:

- (1) Program baselining.
- (2) System engineering.
- (3) Configuration management.
- (4) Technical control.
- (5) Logistics support planning.
- (6) Test and evaluation management (12:4).

The regulation also identifies 34 individual tasks which the program manager must accomplish in order to carry out his responsibility. Although this regulation does not address the establishment of qualification and training requirements for these program managers, the regulation is very specific in outlining the program manager's functional responsibilities;

these responsibilities could be used to establish qualification and training requirements.

The fourth source of policy guidance for AFLC acquisition program managers, AFR 800-2, ACQUISITION PROGRAM MANAGEMENT, provides the most comprehensive guidance concerning acquisition program management. As mentioned previously, this regulation has been revised and now applies to modification programs and the acquisition of some communications-computer systems. AFR 800-2 approaches acquisition program management in terms of the planning stage, the program execution stage, and the transition stage (6:2-4). The specifics of managing the program are detailed as follows:

- (1) Solicitation, Negotiation, Contract Award and Contract Administration.
- (2) Development and Support.
- (3) Controlling the Program.
- (4) Managing Changes (6:3).

While there is little evidence which indicates that AFLC acquisition program managers have used AFR 800-2 prior to the DMR, for program management policy guidance, it has, nonetheless, been an option.

In summary, if AFLC were to have developed, prior to the DMR, a comprehensive qualification and selection process for all its acquisition program managers, that process would have had to incorporate qualification requirements from four distinct USAF policy perspectives. In addition, AFLC would

have to internally reconcile any program management process conflicts among these different perspectives; the perspectives being:

- (1) Operational Requirements (AFR 57-4).
- (2) Logistics Management (AFR 400-3).
- (3) Communications-Computer Systems (AFR 700-4).
- (4) Acquisition Management (AFR 800-2).

For this reason, a comprehensive qualification and selection process for all AFLC acquisition program managers does not appear to have been established. This is in contrast to Air Force Systems Command, whose program management policy guidance was centered primarily in one regulation, AFR 800-2.

The Need for Improved Management of Modification Programs

Traditionally, AFLC PMs (located at one of the five Air Logistics Centers) have been involved with the management of weapon system modification programs. Also, the modification of existing weapon systems to achieve revised mission objectives has gained support over the last few years. In as much as funding for these AFLC-led modifications has increased, high level interest in the process of modification management has also increased (2:7). This is particularly true of Class V modifications which add new capability to an existing system. Previous research in this area points out that, historically, the approach used by AFLC PMs for modification management was not a system's approach (2:12).

The literature pointed out that AFLC program managers follow the AFR 57-series regulations, while their counterparts in AFSC follow the 800-series regulations. Although both the 57- and 800-series regulations govern program management, the two regulations approach the program management process from fundamentally different perspectives (1:20). The 800-series regulations view the program management process from a systems approach; that is, program management decisions should be made only after considering the impact of various decision alternatives on the entire life cycle of the system. The 57-series regulations, however, view the modification program management process from something other than a systems approach. This non-systems approach tends to be based on managing each modification according to its location in the modification process; for example, management of planning the modification might be separate from management of installing the modification (2:12). For this reason, basic differences in philosophy exist when it comes to AFLC (non-systems approach) versus AFSC (systems approach) program management.

Improvement of the entire logistics process, including program management, was the goal of former AFLC Commander, General Alfred G. Hansen.

"In AFLC, we have found that quality logistics is the key to meet the military challenge and to compete in this tough environment. In the past, we tended to limit quality efforts to manufacturing, repair, and distribution processes. We did not consider areas like acquisition..." (21:9)

However, despite the current top-level DoD, HQ USAF, and HQ AFLC emphasis on improving acquisition, this emphasis has not, as was previously mentioned, been translated into a formal training and education program for AFLC acquisition program managers.

A Review of AFLC Training of Air Force Officers

Air Force officers in AFLC are normally assigned to one of several career fields; either maintenance, transportation, supply, or logistics plans and programs (19:28). Furthermore, each of these career fields has its own formal training program. In recent years, AFLC has made a concerted effort to educate all officers concerning the entire logistics process, in addition to their particular specialty (27:2). However, this "entire" logistics process has not included acquisition program management.

AFLC is presently investigating the feasibility of establishing specific acquisition management officer career fields, but discussions are still in early stages (30). AFLC has also recently conducted "Acquisition Executive Seminars" for the purpose of providing AFLC field grade officers information on the acquisition management process, but there still is not the emphasis on developing acquisition management officers within AFLC.

AFSC, though, as mentioned earlier, has developed a total acquisition management career development program to ensure a

wide range of experience for its acquisition management officers (28:6). This four level formal certification process was developed in 1985 in response to a published report to the President by his Blue Ribbon Commission on Defense Management (Packard Commission) (25:21).

In addition to the AFSC acquisition management career development program, the other services have also been working similar issues (3:5). There are several acquisition management officer career training programs being developed by the uniformed services, so AFLC should have a number of resources to call on, if they choose, as they develop their own acquisition management development program. Also, several AFIT graduate theses have investigated various aspects of acquisition management officer training, but only as they relate to AFSC officers.

Review of Past AFIT Graduate Theses

A Study of Areas for Acquisition Project Officer

Training: In 1988 Captain Scott Smith investigated the relative importance of selected subject areas for acquisition project officer training. He found that the areas most needed for job accomplishment in the acquisition area were Group Decision Making, Contracting, and Communication Skills (29:vi). However, this research concentrated solely on junior officers assigned to AFSC, and did not address the attitudes of acquisition program managers or deputy program managers.

A Study of the Impact of AFSC Regulation 36-5 on the

27XX Career Field: In 1987 Captain Kevin Lopez researched the impact of AFSCR 36-5 on the 27XX career field.

AFSCR 36-5 implemented the AFSC Acquisition Management Professional Career Development Program. Captain Lopez concluded that there had been little formalization of the AFSC acquisition force career development program, and that there was a real need to develop common educational, training, and experience bases for military acquisition officers (26:21).

Conclusion

Because AFLC is relatively new to the acquisition program management arena when compared to AFSC (traditionally, the acquisition command) there are very few professional papers dealing with the specific topics of (1) formal training and education requirements for AFLC acquisition program managers, or (2) the identification and selection criteria for AFLC acquisition program managers.

While AFLC is no stranger to participating in the acquisition process as a supporting command, or to managing major modification programs at the ALCs, AFLC has not traditionally viewed itself as an acquisition command in the same way that AFSC has been viewed as an acquisition command. AFLC has been, and still is, more involved with the day-to-day logistics operations of supply, transportation, maintenance, distribution, and logistics planning. There are, however,

initiatives underway at AFLC to get their "acquisition house" in order; these initiatives begin with direction from the Secretary of Defense, and flow down through the Secretary of the Air Force to the AFLC commander.

While the professional articles reviewed tend to identify acquisition and its related training solely with AFSC, and do not fully acknowledge AFLC as a full participant in terms of the acquisition program management process, there is an underlying sense that if AFLC were to centralize management of its acquisition and modification programs under the accepted 800- series Air Force Regulations, they (AFLC) would be given more credibility in terms of being true acquisition program managers.

It is very clear from the DMR, DoD Directives, and Air Force Regulations, that AFLC is expected to identify, select, and train its acquisition program managers, and thereby successfully accomplish the "acquisition" portion of the overall AFLC mission.

III. Methodology

Introduction

This chapter describes the design for this research study and the methodology used to gather and interpret the data. It should be noted that, with the exception of some data gathered during the literature review, the information collected is subjective in nature and subject to the problems associated with any sample, including selecting non-representative samples (20:276).

In order to answer the different investigative questions, several data collection methods were used, several populations of interest were considered and several test instruments were used. This chapter will explain the data collection methods (including test instruments), and populations of interest for the individual investigative questions.

Data Collection: Investigative Questions #1 and #2

Investigative questions #1 and #2 were as follows.

- 1) What has been the AFLC approach to the acquisition program management process, and how does that compare to the AFSC approach to the acquisition program management process?
- 2) Which acquisition programs are managed by AFLC and, more specifically, which of these programs are managed by HQ AFLC program managers at the LMSC?

Data to answer these two questions were collected from a review of existing literature, Department of Defense Directives, Air Force Regulations, and AFLC correspondence. While the data to answer question #2 was accurate and easy to obtain, the data to accurately answer question #1 had some inherent weaknesses.

The source of data for question #1 was primarily Air Force Regulations, AFLC Regulations, and AFSC Regulations, and even though these regulations specify how an acquisition program should be managed, the regulations do not specify whether or not an acquisition program is, in fact, being managed according to the regulation. Because of this, the data to answer question #1 is accurate in terms of regulatory direction, but may not be accurate in terms of actual regulatory compliance, nor was there any attempt made in this research to measure acquisition program manager compliance with applicable Air Force, AFLC, or AFSC Regulations.

Data Collection: Investigative Questions #3 and #4

Investigative questions #3 and #4 were as follows.

- 3) Who are the program managers and deputy program managers for these HQ AFLC programs, and (a) what formal education have these program managers and deputy program managers received, (b) what types of acquisition program management training have these individuals received, and (c) what past job

experience do these program managers have in acquisition and logistics functional areas?

- 4) Based on their experience as HQ AFLC acquisition program managers, (a) what is the perceived importance by these program managers of knowledge of, or experience in, specific acquisition and logistics functional areas, and (b) what additional education, training, and job experience do these individuals believe would make them more qualified to serve as program managers?

Data to answer questions #3 and #4 were gathered using a survey instrument (see Appendix A). The specific population to which the survey was given was "HQ AFLC acquisition program managers and deputy program managers." This specific population will be discussed in greater detail later under the heading Populations of Interest. The survey instrument was divided into four sections, with each section designed to gather specific types of data.

The first section of the survey was designed to gather demographic information about the respondent in terms of civilian grade or military rank, gender, and age. The second section of the survey was designed to gather background information about the respondent in terms of level of formal education, past job experience, present job, formal training received (other than formal education), and experience in acquisition and logistics functional areas.

The third section of the survey was designed to gather information about the respondent's perception of the importance of expertise in certain acquisition and logistics functional areas, and certain logistics disciplines, to job performance. This data was subjective and prone to bias depending on the respondent's background and experience.

This section of the survey was also used to provide a relative ranking of the importance of expertise in these functional areas and logistics disciplines, based on the cumulative responses of all respondents. The information was collected using the Likert type scale shown in Table 2 below.

TABLE 2
AN EXAMPLE OF SCALE USED IN THE SURVEY

| (1) | (2) | (3) | (4) | (5) |
|-------------------------|-----------------------|-------------------------|-------------------|------------------------|
| NOT IMPORTANT AT ALL | SOMEWHAT IMPORTANT | MODERATELY IMPORTANT | VERY IMPORTANT | ABSOLUTELY CRITICAL |

This scale was used for survey question #18 and survey question #19. The following equation was used to determine the score for each functional area (survey question #18) and each logistics discipline (survey question #19):

$$\text{score} = [Ax5 + Bx4 + Cx3 + Dx2 + Ex1]/N$$

where: A = number of Absolutely Critical responses
B = number Very Important responses
C = number of Moderately Important responses
D = number of Somewhat Important responses
E = number of Not Important At All responses
N = total number of responses

Even though the same scale was used for both survey question #18 and survey question #19, a separate relative ranking was computed for each question. The respondent was also given the opportunity to "write-in" additional functional areas for survey question #18, and to rate the perceived importance of the "write-in" area. This would allow the respondent to mention areas that the researcher might not have considered in developing the survey instrument.

There is an inherent problem to using this type of ordinal scale, however, in that although one can gauge, more or less, a respondent's perception of the relative importance of a functional area or logistics discipline, it is impossible

to accurately understand just how much more or less this perception is (20:258).

The third section of the survey instrument was also designed to gather information concerning the respondent's selection for assignment as an acquisition program manager or deputy program manager, and the respondent's perception of personal qualifications for that position. The information provided by the respondent was in written narrative form and subjective in nature.

The fourth section of the survey instrument was designed to allow the respondent to provide recommendations concerning the identification, selection, and training of HQ AFLC acquisition program managers. This information was also in written narrative form and subjective in nature.

Data Collection: Investigative Questions #5, #6, and #7

Investigative questions #5, #6, and #7 were as follows.

- 5) What assignment experience, formal training, and education do the senior leaders in AFLC consider important for AFLC acquisition program managers?
- 6) What is the current process for identifying and selecting HQ AFLC program managers, how does this compare to the AFSC program manager selection process, and why do differences, if any, exist?

- 7) What initiatives are currently in work within AFLC to (a) meet the unique needs of AFLC acquisition program managers, (b) ensure that the best qualified individuals are selected as acquisition program managers, and (c) meet the requirements of the DMR in terms of establishing a dedicated acquisition corps for military and civilian personnel?

The method of data collection for these investigative questions was the interview method. The specific population interviewed would be classified as "Senior AFLC Personnel Involved with AFLC Acquisition Program Manager Identification and Selection." Details of this specific population are discussed under the heading Populations of Interest.

The interview questions used (see Appendix B) concerned three primary areas. Those areas were (a) the need for AFLC acquisition program managers, (b) formal education, training, and job experience requirements for AFLC acquisition program managers, and (3) the AFLC acquisition program manager identification and selection process.

The personal interview method of data collection was decided upon for several reasons. First, the depth and detail of information that could be obtained made the interview a very attractive method (20:160). Second, the interview method provided the opportunity for follow-up questions by the interviewer, and the opportunity for the interviewee to provide additional relevant information. Third, the specific

population to be interviewed was physically located close to the researcher, which allowed flexibility in arranging interview schedule times.

The biggest disadvantage to the interview method for this portion of the research was that some members of the population were unable, because of scheduling conflicts, to schedule personal interviews. In these instances, the respondent provided written answers to the interview questions. There was not, however, the opportunity for follow-up questions.

Populations of Interest

There were two basic populations of interest for this research. They were as follows.

- a. HQ AFLC acquisition program managers and deputy program managers. These individuals received the survey instrument.
- b. Senior AFLC personnel involved with AFLC acquisition program manager identification and selection. Personal interviews were requested with these individuals.

As mentioned above, the survey instrument was mailed to those individuals occupying either an acquisition program manager position, deputy program position, or other acquisition program management position in HQ AFLC. All of these positions were located in the LMSC (24:1-9).

Table 3 below lists these acquisition program manager positions and deputy program manager positions in the LMSC.

TABLE 3
LMSC PROGRAM MANAGER AND DEPUTY PROGRAM MANAGER POSITIONS

| <u>Title</u> | <u>Organization</u> |
|------------------------|---|
| Deputy | Deputy for Distribution Systems |
| Assistant Deputy | Deputy for Distribution Systems |
| Program Manager | Contracting Data Management System Program Management Office (PMO) |
| Deputy Program Manager | Contracting Data Management System PMO |
| Program Manager | Stock Control & Distribution PMO |
| Deputy Program Manager | Stock Control & Distribution PMO |
| Program Manager | Enhanced Transportation Automated Data System PMO |
| Program Manager | CYBER Rehost Program Division |
| Deputy Program Manager | CYBER Rehost Program Division |
| Program Manager | Requirements Data Bank PMO |
| Deputy Program Manager | Requirements Data Bank PMO |
| Program Manager | Central Procurement Accounting Systems Division |
| Deputy Program Manager | Central Procurement Accounting Systems Division |
| Program Manager | Weapon System Management Information System PMO |

(continued on following page)

TABLE 3 (continued)

LMSC PROGRAM MANAGER AND DEPUTY PROGRAM MANAGER POSITIONS

| <u>Title</u> | <u>Organization</u> |
|------------------------|--|
| Deputy Program Manager | Weapon System Management Information System PMO |
| Program Manager | Modernization of Defense Logistics Systems PMO |
| Program Manager | Air Force Equipment Management System PMO |
| Deputy Program Manager | Air Force Equipment Management System PMO |
| Program Manager | Directorate of Reliability and Maintainability |
| Deputy Program Manager | Directorate of Reliability and Maintainability |
| Program Manager | Directorate of Technical Data Systems |
| Deputy Program Manager | Directorate of Technical Data Systems |
| Program Manager | Gateways Division |
| Program Manager | Directorate of Base Networks |
| Program Manager | Logistics Data Integration Systems Program Management Division |
| Deputy | Deputy for LMS Program Control |
| Assistant Deputy | Deputy for LMS Program Control |

(24:1-9)

The selection of individuals receiving the survey instrument was a purposive judgement sample; the individuals were selected based on a specific criterion (20:280).

Specifically, this criterion was that the individual occupy an acquisition program manager position or deputy program manager position in the LMSC. In this case, the sample consisted of the entire population of interest.

The interview instrument was administered to those senior AFLC personnel involved with AFLC acquisition program manager identification and selection. Table 4 below identifies those senior AFLC individuals with whom the researcher requested personal interviews; that is, to receive the interview instrument.

TABLE 4
SENIOR AFLC INDIVIDUALS SELECTED FOR INTERVIEW REQUEST

| <u>Individual</u> | <u>Military/Civilian</u> |
|-------------------|--------------------------|
| AFLC/CC | Military |
| AFLC/CV | Military |
| AFLC/CS | Military |
| AFLC/MM | Military |
| AFLC/MM Asst DCS | Civilian |
| AFLC/MMA | Military |
| AFLC/SC | Military |
| AFLC/SC Asst DCS | Civilian |
| AFLC/DP | Military |
| AFLC/DPC | Civilian |

The selection of these individuals was also a purposive judgement sample, however the selection of the sample was subject to bias on the part of the researcher. Because the concept of "HQ AFLC acquisition program manager identification, selection, and training" is relatively new (within the last two years), it was very difficult to speculate as to how knowledgeable the population of interest was in terms of the HQ AFLC acquisition program manager identification and selection process. Furthermore, the researcher suspected that only a few of the senior AFLC individuals selected to receive the interview instrument would be the primary sources of information in this area, but the researcher was unable to ascertain specifically who these individuals were, prior to requesting the interviews.

For this reason, the population of interest was selected, not because of their expertise in HQ AFLC acquisition program management or program manager identification and selection, but rather because of their knowledge of recent HQ AFLC policy initiatives in these areas. Moreover, the population of interest was not considered by the researcher to be made up of "experts" in the HQ AFLC acquisition program management arena because, again, that arena is relatively new.

IV. Results

Introduction

This chapter presents the results of the survey instrument and the results of the interview instrument. As mentioned previously, the survey instrument was used to gather information from HQ AFLC acquisition program managers and deputy program managers in terms of what they believe to be important in HQ AFLC acquisition program manager identification, selection, and training. The interview instrument was used to gather information from selected senior AFLC personnel in terms of what they believe to be important in HQ AFLC acquisition program manager identification, selection, and training. The results of the survey instrument, the interview instrument, and the literature review will then be used to answer the investigative questions.

Survey Results

The survey instrument was mailed to 27 individuals in the LMSC. All of these individuals were either (a) acquisition program managers or deputy program managers, or (b) had served as an acquisition program manager or deputy program manager in the LMSC prior to their current position. Of the 27 survey instruments mailed out, responses were received from 20 individuals for a response rate of 74.07%.

Table 5 below provides demographic information based on the respondents' answers to the following three items.

- a. What is your rank/grade?
- b. Sex (Male/Female).
- c. Age.

TABLE 5
DEMOGRAPHIC INFORMATION

a. What is your rank/grade?

| <u>Military Rank/Civilian Grade</u> | <u># of Respondents</u> |
|-------------------------------------|-------------------------|
| O-5 | 3 |
| O-6 | 3 |
| GM-13 | 3 |
| GM-14 | 6 |
| GM-15 | 5 |

b. Sex.

| <u>Sex</u> | <u># of Respondents</u> |
|------------|-------------------------|
| Female | 1 |
| Male | 19 |

c. Age. (1 respondent did not give age)

| <u>Age</u> | <u># of Respondents</u> |
|------------|-------------------------|
| 36 to 40 | 1 |
| 41 to 45 | 11 |
| 46 to 50 | 5 |
| 51 to 55 | 2 |

The second section of the survey instrument was designed to collect background information on the respondents. This information concerned the respondents' level of formal education, job experience, and formal training received. Table 6 below summarizes the responses to Survey Item #4 which deals with the highest level of formal education achieved.

TABLE 6
FORMAL EDUCATION LEVEL

(1 respondent did not answer)

| <u>Education Level</u> | <u># of Respondents</u> | <u>Academic Specialty</u> |
|---------------------------------------|-------------------------|--|
| Some Undergraduate College Courses | 2 | (None given) Computer Science |
| Associates Degree | 2 | Data Processing Computer Science |
| B.S./B.A. Degree | 5 | Computer Science and Mathematics Industrial Mgmt. Business Mgmt. Bio. Science Business and Economics |

(continued on following page)

TABLE 6 (continued)
FORMAL EDUCATION LEVEL

(1 respondent did not answer)

| <u>Education Level</u> | <u># of Respondents</u> | <u>Academic Specialty</u> |
|------------------------|-------------------------|---|
| Master's Degree | 10 | <p>Management (BS, Business Mgmt.)</p> <p>Management (BS, Engineering)</p> <p>Psychology (BS, Psychology)</p> <p>Personnel Mgmt. (BBA, Finance)</p> <p>Management Sciences (BS, Mathematics and Psychology)</p> <p>Personnel Mgmt. (BA, English and Speech)</p> <p>Research and Development Mgmt. (BS, Business Mgmt.)</p> <p>Public Admin. (BS, Business Admn.)</p> <p>Administration (BS, Management)</p> <p>Guidance and Counseling (BS, Psychology)</p> |

(continued on next page)

TABLE 6 (continued)
FORMAL EDUCATION LEVEL

(1 respondent did not answer)

| <u>Education Level</u> | <u># of Respondents</u> | <u>Academic Specialty</u> |
|--|-------------------------|---------------------------|
| Other: (Some respondents identified the following programs/courses in addition to the formal education level identified above.) | | |
| Harvard Program for Senior Executive Fellows | 2 | |
| DSMC Program Manager's Course (20 weeks) | 2 | |
| DSMC Program Manager's Course (Part I) | 2 | |
| Certified Data Processing | 1 | |
| Trail Boss - Acquisition | 1 | |

Questions #5 to #17 of the survey instrument were designed to obtain information about the respondents' present and past job experience, and to obtain information about any job-related formal training received by the respondents. Table 7 below shows how many respondents are currently serving in acquisition program management related positions, and how long the individuals have been in those positions. Three respondents do not currently serve in either program manager or deputy program manager positions, however their past experience as either program managers or deputy program managers make them knowledgeable in this area.

TABLE 7
RESPONDENTS IN ACQUISITION PROGRAM MANAGEMENT POSITIONS

| <u>Position</u> | <u># of Respondents</u> | <u>Time in Current Position</u> |
|---------------------|-------------------------|---------------------------------|
| Program Manager | 12 | 6-12 Months (6) |
| | | 13-24 Months (1) |
| | | 25-36 Months (1) |
| | | 41 Months (1) |
| | | 52 Months (1) |
| | | 60 Months (2) |
| Deputy Program Mgr. | 5 | 6-12 Months (1) |
| | | 13-24 Months (2) |
| | | 25-36 Months (1) |
| | | 84 Months (1) |
| Other | 3 | 13-24 Months (1) |
| | | 25-36 Months (2) |

When discussing the HQ AFLC acquisition program manager identification, selection, and training process it is important to know how many of the current program management personnel are civilian and how many are military, and whether or not there exists a rationale for placing a civilian or military in a specific position. While this rationale will not be discussed at this point in the research, the civilian or military occupancy of acquisition program management

positions will be pointed out. Table 8 below provides this. How civilians compare with military in terms of time in current positions is also provided.

TABLE 8

TIME IN CURRENT POSITION - CIVILIAN AND MILITARY PERSONNEL

| <u>Position</u> | <u>Time in Current Position</u> | <u>Civilian/Military</u> |
|-------------------------|---------------------------------|--------------------------|
| Program Manager (12) | 6-12 Months | Mil O-6 (2) |
| | | Civ GM-15 (2) |
| | | Civ GM-14 (1) |
| | | Civ GM-13 (1) |
| | 13-24 Months | Mil O-5 (1) |
| | 25-36 Months | Mil O-6 (1) |
| | 41 Months | Civ GM-14 (1) |
| | 52 Months | Civ GM-13 (1) |
| | 60 Months | Civ GM-15 (1) |
| | | Civ GM-14 (1) |
| Deputy Program Mgr. (5) | 6-12 Months | Mil O-5 (1) |
| | 13-24 Months | Civ GM-14 (1) |
| | | Civ GM-13 (1) |
| | 25-36 Months | Civ GM-14 (1) |
| | 84 Months | Civ GM-14 (1) |
| Other (3) | 13-24 Months | Civ GM-15 (1) |
| | 25-36 Months | Civ GM-15 (1) |
| | | Mil O-5 (1) |

Respondents were asked about job series classifications (civilians) and Air Force Specialty Codes (military). Table 9 below provides information about the present classifications and codes, by program management position.

TABLE 9
PRESENT JOB SERIES CLASSIFICATIONS/AIR FORCE SPECIALTY CODES

| <u>Program Management Position</u> | <u>Mil./Civ.</u> | <u>Classification/Code</u> |
|------------------------------------|------------------|----------------------------|
| Program Manager (6) | Civilian | 345 |
| Program Manager (1) | Civilian | 301 |
| Program Manager (1) | Civilian | 334 |
| Program Manager (3) | Military | 0046 |
| Program Manager (1) | Military | 4996 |
| Deputy Program Manager (3) | Civilian | 345 |
| Deputy Program Manager (1) | Civilian | 301 |
| Deputy Program Manager (1) | Military | 0046 |
| Other (2) | Civilian | 345 |
| Other (1) | Military | 0046 |

The classifications and codes are defined as follows: 345 is Program Analyst; 301 is Program Management Specialist; and 334 is Computer Programmer (5:1-10). The military Air Force Specialty Code 0046 is Director of Logistics, and 4996 is Communications - Computer Systems Director.

The survey also queried respondents as to how many people they directly supervised, and to how many people were in their (the respondents) program office. Table 10 below provides this information.

TABLE 10
PERSONNEL SUPERVISED & SIZE OF PROGRAM OFFICE

| <u>Position</u> | <u>Directly Supervised</u> | <u>Program Office Size</u> |
|-----------------------|----------------------------|----------------------------|
| Program Manager (12) | 0 to 5 (4) | 0 to 10 (1) |
| | 6 to 8 (3) | 11 to 20 (2) |
| | More than 16 (5) | 21 to 30 (2) |
| | | 41 to 50 (1) |
| | | More than 50 (6) |
| Deputy Prgrm. Mgr (5) | 0 to 5 (4) | 0 to 10 (1) |
| | More than 16 (1) | 21 to 30 (1) |
| | | More than 50 (3) |
| Other | More than 16 (3) | 0 to 10 (1) |
| | | More than 50 (2) |

(Note: The researcher speculates that the one "Other" respondent who answered "0 to 10" under "Program Office Size" did so because he was not working in a program office. The respondent did mention that, in his organization, he supervised 69 people.)

In order to gain an insight into the previous experience of current HQ AFLC program management personnel, respondents were asked several questions about their previous assignments. These questions dealt with former job series classifications and Air Force Specialty Codes, experience in other acquisition program offices, level of previous assignments, experience in

functional areas, and experience in logistics disciplines. Table 11 below provide information on previous job series classifications and Air Force Specialty Codes held by the respondents. The information presented is cumulative for all respondents.

TABLE 11

PREVIOUS JOB SERIES CLASSIFICATIONS/AIR FORCE SPECIALTY CODES

| <u>Previous Position</u> | <u>Mil./Civ.</u> | <u>Classif./Code</u> | <u>How Long</u> |
|---------------------------------|------------------|----------------------|-----------------|
| Communications Systems | Civilian | 301 | 3 Years |
| Program Management | Civilian | 301 | 3 Years |
| | Civilian | 301 | 1 Year |
| Computer Operations | Civilian | 332 | 5 Years |
| | Civilian | 332 | 8 Years |
| Computer Programmer/ Analyst | Civilian | 334 | 5 Years |
| | Civilian | 334 | 12 Years |
| | Civilian | 334 | 4 Years |
| | Civilian | 334 | 13 Years |
| | Civilian | 334 | 22 Years |
| | Civilian | 334 | 13 Years |
| Project Planning | Civilian | 334 | 3 Years |
| Computer Recovery | Civilian | 335 | 2 Years |
| Management Engineering | Civilian | 343 | 1 Year |
| Management Assistance | Civilian | 344 | 1 Year |
| Program Management/ Analysis | Civilian | 345 | 5 Years |
| | Civilian | 345 | 4 Years |
| | Civilian | 345 | 4 Years |
| | Civilian | 345 | 4 Years |
| | Civilian | 345 | 2 Years |
| | Civilian | 345 | 4 Years |

(continued on following page)

TABLE 11 (continued)

PREVIOUS JOB SERIES CLASSIFICATIONS/AIR FORCE SPECIALTY CODES

| <u>Previous Position</u> | <u>Mil./Civ.</u> | <u>Classif./Code</u> | <u>How Long</u> |
|---|------------------|----------------------|-----------------|
| Business Management | Civilian | 345 | 3 Years |
| Materiel Management/ Distribution | Civilian | 345 | 8 Years |
| Logistics Management/ Planning/Acquisition | Civilian | 346 | .5 Years |
| Logistics | Civilian | 346 | 1 Year |
| | Civilian | 346 | 9 Years |
| | Civilian | 346 | 11 Years |
| Operational Logistics | Civilian | 346 | 8 Years |
| Industrial Engineer | Civilian | 896 | 2 Years |
| | Civilian | 896 | 9 Years |
| Business/Industry Specialist | Civilian | 1101 | 2 Years |
| Contracting Specialist | Civilian | 1102 | 12 Years |
| Operations Research | Civilian | 1515 | 10 Years |
| Supply | Civilian | 2003 | 10 Years |
| | Civilian | 2003 | 2 Years |
| | Civilian | 2003 | 2 Years |
| Inventory Management/ Supply/Requirements | Civilian | 2010 | 14 Years |
| | Civilian | 2010 | 5 Years |
| | Civilian | 2010 | 2 Years |
| Distribution | Civilian | 2130 | 10 Years |
| Director, Logistics | Military | 0046 | 6 Years |
| | Military | 0046 | 1 Year |
| AFROTC Instructor | Military | 00940 | 1 Year |
| Missile Operations | Military | 1816 | 2 Years |
| | Military | 1825 | 1.5 Years |
| | Military | 1835 | 1.5 Years |

(continued on following page)

TABLE 11 (continued)

PREVIOUS JOB SERIES CLASSIFICATIONS/AIR FORCE SPECIALTY CODES

| <u>Previous Position</u> | <u>Mil./Civ.</u> | <u>Classif./Code</u> | <u>How Long</u> |
|---|------------------|------------------------|-----------------|
| Computer Systems Analyst | Military | 1835C | 5 Years |
| Communications/ Electronics | Military | 3016 | 10 Years |
| | Military | 3024 | 4 Years |
| | Military | 3034 | 8 Years |
| | Military | 30xx | 8 Years |
| Missile Maintenance | Military | 3116 | 3 Years |
| Maintenance, Aircraft/Avionics | Military | 4024 | 10 Years |
| | Military | 4044 | 12 Years |
| Communications/ Electronics | Military | 4916 | 2 Years |
| | Military | 4996 | 2 Years |
| Supply | Military | 6411/ 6416/ 6424 | 19 Years |
| | Military | 6416 | 20 Years |
| Logistics Plans | Military | 66xx | 14 Years |
| | Military | 6624 | 10 Years |
| Deputy Program Manager for Logistics | Military | 6616 | 1 Year |

The respondents were also asked whether they had held any other positions (not including their present positions) in acquisition program offices. Of the 20 respondents, 14 had prior acquisition program office experience, while 6 had no previous acquisition program office experience. This information is detailed in the following Table 12.

TABLE 12
PRIOR ACQUISITION PROGRAM OFFICE EXPERIENCE

| <u>Current Position</u> | <u>Mil./Civ.</u> | <u>Prior Experience</u> |
|----------------------------|------------------|-------------------------|
| Program Manager (6) | Civilian | Yes |
| Program Manager (2) | Civilian | No |
| Program Manager (3) | Military | Yes |
| Program Manager (1) | Military | No |
| Deputy Program Manager (2) | Civilian | Yes |
| Deputy Program Manager (2) | Civilian | No |
| Deputy Program Manager (1) | Military | No |
| Other (2) | Civilian | Yes |
| Other (1) | Military | Yes |

Those respondents who stated they had prior acquisition program office experience were then asked several additional questions concerning the program office positions they held and the organizations to which they were assigned. Of the 14 respondents who stated they had prior acquisition program office experience, 9 of the respondents had prior experience limited to similar LMSC communications-computer systems acquisition programs, while 5 of the respondents had prior experience on other types of acquisition programs. Table 13 provides this information for civilians with prior experience.

TABLE 13

PRIOR ACQUISITION PROGRAM OFFICE POSITIONS HELD (CIVILIANS)

| <u>Current Position</u> | <u>Prior Positions</u> | <u>Major Command/ Organization</u> |
|-------------------------|--|--|
| Program Manager | Deputy Program Manager Director, Contracting and Manufacturing Chief, Contracts Division Procuring Contracting Officer (Senior PCO) | AFLC/AFSC |
| Program Manager | Project Officer Source Selection Program Manager | AFLC |
| Program Manager | Program Manager Program Manager | AFLC |
| Program Manager | Deputy Program Manager Chief, Business Management Division | AFLC |
| Program Manager | Program Manager Program Manager | AFLC |
| Program Manager | Deputy Program Manager Business Manager | AFLC |
| Deputy Prg. Mgr. | Program Manager | AFLC |
| Deputy Prg. Mgr. | Business Manager Project Planner | AFLC |
| Other | Program Manager Program Manager Deputy Program Manager | AFLC |
| Other | Deputy Program Manager for Logistics | AFLC/AFSC |

Information on military respondents who indicated that they had served in prior acquisition program office positions is provided in Table 14 below.

TABLE 14
PRIOR ACQUISITION PROGRAM OFFICE POSITIONS HELD (MILITARY)

| <u>Current Position</u> | <u>Prior Positions</u> | <u>Major Command/ Organization</u> |
|-------------------------|---|--|
| Program Manager | Peace Hawk (Saudi F-5) Peace Sun (Saudi F-15) Peace Sentinel (Saudi E-3A) | AFLC |
| Program Manager | Program Manager | AFLC |
| Program Manager | Chief, Programs Division Director, Systems Engineering | AFLC/AFSC |
| Other | Deputy Program Manager for Logistics | AFLC/AFSC |

Respondents were then asked about the level of their previous assignments. Table 15 below indicates the results.

TABLE 15
LEVEL OF PREVIOUS ASSIGNMENTS

| <u>Current Position</u> | <u>Mil./Civ.</u> | <u>Level of Previous Assignments</u> |
|-------------------------|------------------|--|
| Program Manager | Civilian | AFSC Product Division Center (not an Air Logistics Center) |

(continued on following page)

TABLE 15 (continued)
LEVEL OF PREVIOUS ASSIGNMENTS

| <u>Current Position</u> | <u>Mil./Civ.</u> | <u>Level of Previous Assignments</u> |
|-------------------------|------------------|--|
| Program Manager | Civilian | AFSC Product Division Center (not an Air Logistics Center) |
| Program Manager | Civilian | Headquarters Staff Level Intermediate Headquarters Base Level Operations (other than support) |
| Program Manager (5) | Civilian | Headquarters Staff Level |
| Program Manager | Civilian | Air Staff |
| Program Manager | Military | Headquarters Staff Level Air Logistics Center Base Level Logistics Support |
| Program Manager | Military | Base Level Logistics Support |
| Program Manager | Military | Headquarters Staff Level Intermediate Headquarters Base Level Operations (other than support) |
| Program Manager | Military | Headquarters Staff Level Air Logistics Center Base Level Logistics Support Air Staff |
| Deputy Prg. Mgr. | Civilian | Headquarters Staff Level Air Logistics Center Base Level Logistics Support |
| Deputy Prg. Mgr. | Civilian | Headquarters Staff Level |
| Deputy Prg. Mgr. | Civilian | Headquarters Staff Level Air Logistics Center |
| Deputy Prg. Mgr. | Civilian | Air Logistics Center |

(continued on following page)

TABLE 15 (continued)
LEVEL OF PREVIOUS ASSIGNMENTS

| <u>Current Position</u> | <u>Mil./Civ.</u> | <u>Level of Previous Assignments</u> |
|-------------------------|------------------|---|
| Deputy Prg. Mgr. | Military | Headquarters Staff Level Intermediate Headquarters Base Level Logistics Support |
| Other | Civilian | Headquarters Staff Level |
| Other | Civilian | Headquarters Staff Level Air Logistics Center AFSC Product Division Air Staff OSD |
| Other | Military | Headquarters Staff Level Air Logistics Center AFSC Product Division Base Level Logistics Support Base Level Operations (other than support) |

All respondents were also asked about whether or not they had personal experience in a variety of acquisition program management and logistics functional areas. The reason for asking this question was to get an understanding of the overall experience level of HQ AFLC acquisition program managers and deputy program managers in general. For this reason, the results presented are cumulative across all respondents. Table 16 which follows indicates how many of the respondents have experience in various functional areas of acquisition program management and logistics.

TABLE 16

EXPERIENCE IN ACQUISITION AND LOGISTICS FUNCTIONAL AREAS

| <u>Functional Area</u> | <u># of Respondents with Experience</u> |
|-------------------------------|---|
| Acquisition Planning | 13 |
| Software Development | 13 |
| Configuration Management | 13 |
| Budget/Program Control | 12 |
| PMRT | 12 |
| Test and Evaluation | 11 |
| Contracting | 10 |
| Site Activation | 10 |
| Maintenance | 10 |
| Logistics Support Analysis | 9 |
| Supply | 9 |
| Integrated Logistics Support | 8 |
| Systems Engineering | 7 |
| Transportation | 7 |
| Depot Activation | 5 |
| Reliability & Maintainability | 3 |
| Other (please specify): | |
| Training | 1 |
| Data Management | 1 |
| Operations Research | 1 |
| Distribution | 1 |

Respondents were asked which logistics disciplines they had experience in. The results, cumulative across all respondents, are presented in Table 17 below.

TABLE 17
EXPERIENCE IN LOGISTICS DISCIPLINES

| <u>Logistics Disciplines</u> | <u># of Respondents with Experience</u> |
|------------------------------|---|
| Wholesale Logistics | 12 |
| Acquisition Logistics | 11 |
| Retail Logistics | 9 |
| Combat Logistics | 7 |
| International Logistics | 6 |
| None of the Above | 4 |

Four respondents indicated that they no experience in the logistics disciplines listed. However, one of the four respondents indicated prior experience in Aircraft Maintenance and Avionics Maintenance; these base level support functions are often considered to be part of Retail Logistics. In the opinion of the researcher, the survey question # 15, which requested information on experience in Logistics Disciplines, could have been better defined. Table 18 which follows provides job experience information on respondents who indicated no experience in the listed logistics disciplines.

TABLE 18

RESPONDENTS WITH NO EXPERIENCE IN LISTED LOGISTICS DISCIPLINES

| <u>Current Position</u> | <u>Mil./Civ.</u> | <u>Prior Job Experience</u> |
|-------------------------|------------------|--|
| Program Manager | Civilian | Program Manager Computer Programmer/ Analyst Computer Operator |
| Program Manager | Civilian | Deputy Program Manager Business Manager Program Analyst Management Engineering |
| Program Manager | Military | Program Manager Avionics Maintenance Aircraft Maintenance |
| Program Manager | Military | Director, Systems Engineering Senior C-CS Systems Manager Comm-Electronics Officer |

Finally, in the second section of the survey instrument, respondents were asked to list any formal training received which they believe to be applicable to their responsibilities as either an acquisition program manager or deputy program manager. The reason for asking this question was not to ascertain the overall level of formal training received by current individual HQ AFLC acquisition program managers and deputy program managers, but rather to gather information on what training might be beneficial to HQ AFLC acquisition program managers in general.

For this reason, the information provided in Table 19 below is cumulative over all respondents. Additionally, one respondent listed formal education degree programs as applicable formal training. Because this particular survey question was not designed to necessarily include formal education as applicable formal training, other respondents did not include formal education as applicable formal training. The fact that other respondents did not include formal education as applicable formal training should not be construed as meaning these other respondents do not consider all, or a portion, of their formal education to be in fact applicable to their acquisition program management responsibilities.

TABLE 19

FORMAL TRAINING APPLICABLE TO ACQUISITION PROGRAM MANAGEMENT

| <u>Course Title</u> | <u># of Respondents</u> |
|---------------------------------------|-------------------------|
| AFALC DPML Course | 1 |
| AFIT SYS 100 | 3 |
| AFIT SYS 200 | 1 |
| DODCI Program Manager Course | 1 |
| DODCI Information Systems Acquisition | 1 |
| DODCI Risk Management | 1 |

(continued on following page)

TABLE 19 (continued)

FORMAL TRAINING APPLICABLE TO ACQUISITION PROGRAM MANAGEMENT

| <u>Course Title</u> | <u># of Respondents</u> |
|---|-------------------------|
| DSMC Short Course (Acquisition Logistics) | 1 |
| DSMC Program Manager Course (Part I) | 2 |
| DSMC Program Manager Course (20 weeks) | 2 |
| Senior Executive Fellows, Harvard University | 1 |
| Trail Boss - GSA | 2 |
| (No source (DSMC, DODCI, etc.) given for the following) | |
| Acquisition Management Course | 1 |
| Comm-Electronics Systems Program Course | 1 |
| Configuration Management Course | 2 |
| Major AIS for Program Managers | 1 |
| Mid and Upper Level Management Courses | 1 |
| Planning, Programming, Budgeting Course | 1 |
| Software Management Course | 1 |
| (The following are Professional Military Education schools) | |
| Air Command and Staff College | 1 |
| Air War College Seminars | 1 |
| Armed Forces Staff College | 1 |
| (The following are formal education degree programs) | |
| MBA (Wright State University) | 1 |
| BS Engineering (San Diego State University) | 1 |

Table 20 below provides information concerning how many of the respondents have actually received any formal training which they believe to be applicable to their responsibilities as either acquisition program managers or deputy program managers.

TABLE 20
RESPONDENTS RECEIVING APPLICABLE FORMAL TRAINING

| <u>Current Position</u> | <u>Mil./Civ.</u> | <u>Formal Training (Yes/No)</u> |
|-------------------------|------------------|---------------------------------|
| Program Manager (4) | Civilian | Yes |
| Program Manager (4) | Civilian | No |
| Program Manager (3) | Military | Yes |
| Program Manager (1) | Military | No |
| Deputy Prg. Mgr. (2) | Civilian | Yes |
| Deputy Prg. Mgr. (2) | Civilian | No |
| Deputy Prg. Mgr. (1) | Military | No |
| Other (2) | Civilian | Yes |
| Other (1) | Military | Yes |

After the respondents answered questions in the second section (Background) of the survey instrument dealing with formal education, job experience, and formal training, the respondents were then asked several subjective questions in the third section of the survey instrument.

The third section (Perceptions) of the survey instrument was designed to obtain information about the importance, as perceived by the respondents, of expertise in certain acquisition program management and logistics functional areas. Respondents were also queried about the perceived importance of expertise in certain logistics disciplines.

Survey question #18 asked the respondents to rate each of 16 different acquisition program management and logistics functional areas as being either:

1. Not Important At All
2. Somewhat Important
3. Moderately Important
4. Very Important
5. Absolutely Critical

The following equation was used to determine the score for each functional area:

$$\text{score} = [Ax5 + Bx4 + Cx3 + Dx2 + Ex1]/N$$

where: A = number of Absolutely Critical responses
B = number Very Important responses
C = number of Moderately Important responses
D = number of Somewhat Important responses
E = number of Not Important At All responses
N = total number of responses

The respondents were also given the opportunity to "write-in" additional functional areas for survey question #18, and to rate the perceived importance of the "write-in" area. However, because only one respondent mentioned any single additional functional area, no scores were computed for these additional areas.

Question #18 of the survey instrument was as follows.

"18. In your current position as a Program Manager/Deputy Program Manager, how important is expertise in the following functional areas to your performance as a Program Manager/Deputy Program Manager?"

Table 21 below lists the total responses to this question.

TABLE 21
TOTAL RESPONSES TO SURVEY QUESTION #18

| <u>Functional Area</u> | <u># Respondents</u> | <u>Score</u> |
|-------------------------|----------------------|--------------|
| Acquisition Planning | 20 Total | 4.40 |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 3 | |
| 4. Very Important | 6 | |
| 5. Absolutely Critical | 11 | |
| Contracting | 20 Total | 4.15 |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 1 | |
| 3. Moderately Important | 2 | |
| 4. Very Important | 10 | |
| 5. Absolutely Critical | 7 | |

(continued on following page)

TABLE 21 (continued)
TOTAL RESPONSES TO SURVEY QUESTION #18

| <u>Functional Area</u> | <u># Respondents</u> | <u>Score</u> |
|-----------------------------|----------------------|--------------|
| Systems Engineering | 19 Total | 3.16 |
| 1. Not Important At All | 1 | |
| 2. Somewhat Important | 3 | |
| 3. Moderately Important | 8 | |
| 4. Very Important | 6 | |
| 5. Absolutely Critical | 1 | |
| Software Development | 19 Total | 3.74 |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 3 | |
| 3. Moderately Important | 4 | |
| 4. Very Important | 7 | |
| 5. Absolutely Critical | 5 | |
| Logistics Support Analysis | 19 Total | 2.63 |
| 1. Not Important At All | 2 | |
| 2. Somewhat Important | 7 | |
| 3. Moderately Important | 6 | |
| 4. Very Important | 4 | |
| 5. Absolutely Critical | 0 | |
| Reliability/Maintainability | 19 Total | 2.74 |
| 1. Not Important At All | 2 | |
| 2. Somewhat Important | 6 | |
| 3. Moderately Important | 6 | |
| 4. Very Important | 5 | |
| 5. Absolutely Critical | 0 | |
| Test and Evaluation | 19 Total | 3.89 |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 2 | |
| 3. Moderately Important | 3 | |
| 4. Very Important | 9 | |
| 5. Absolutely Critical | 5 | |

(continued on following page)

TABLE 21 (continued)
TOTAL RESPONSES TO SURVEY QUESTION #18

| <u>Functional Area</u> | <u># Respondents</u> | <u>Score</u> |
|--|----------------------|--------------|
| Budget/Program Control | 19 Total | 4.79 |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 4 | |
| 5. Absolutely Critical | 15 | |
| Configuration Management | 20 Total | 4.00 |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 1 | |
| 3. Moderately Important | 4 | |
| 4. Very Important | 9 | |
| 5. Absolutely Critical | 6 | |
| Integrated Logistics Support | 20 Total | 2.75 |
| 1. Not Important At All | 2 | |
| 2. Somewhat Important | 6 | |
| 3. Moderately Important | 8 | |
| 4. Very Important | 3 | |
| 5. Absolutely Critical | 1 | |
| Program Management Responsibility Tranfer | 19 Total | 2.84 |
| 1. Not Important At All | 1 | |
| 2. Somewhat Important | 5 | |
| 3. Moderately Important | 9 | |
| 4. Very Important | 4 | |
| 5. Absolutely Critical | 0 | |
| Site Activation | 20 Total | 3.40 |
| 1. Not Important At All | 1 | |
| 2. Somewhat Important | 2 | |
| 3. Moderately Important | 7 | |
| 4. Very Important | 8 | |
| 5. Absolutely Critical | 2 | |

(continued on following page)

TABLE 21 (continued)
TOTAL RESPONSES TO SURVEY QUESTION #18

| <u>Functional Area</u> | <u># Respondents</u> | <u>Score</u> |
|-------------------------|----------------------|--------------|
| Depot Activation | 19 Total | 1.89 |
| 1. Not Important At All | 10 | |
| 2. Somewhat Important | 4 | |
| 3. Moderately Important | 2 | |
| 4. Very Important | 3 | |
| 5. Absolutely Critical | 0 | |
| Maintenance | 20 Total | 2.80 |
| 1. Not Important At All | 3 | |
| 2. Somewhat Important | 5 | |
| 3. Moderately Important | 6 | |
| 4. Very Important | 5 | |
| 5. Absolutely Critical | 1 | |
| Supply | 20 Total | 2.60 |
| 1. Not Important At All | 5 | |
| 2. Somewhat Important | 5 | |
| 3. Moderately Important | 6 | |
| 4. Very Important | 1 | |
| 5. Absolutely Critical | 3 | |
| Transportation | 20 Total | 2.30 |
| 1. Not Important At All | 7 | |
| 2. Somewhat Important | 4 | |
| 3. Moderately Important | 6 | |
| 4. Very Important | 2 | |
| 5. Absolutely Critical | 1 | |

Other:

(The following "Other" functional areas were added by individual respondents. Scores were not computed because there was only one respondent for each of the additional areas.)

(continued on following page)

TABLE 21 (continued)
TOTAL RESPONSES TO SURVEY QUESTION #18

| <u>Functional Area</u> | <u># Respondents</u> | <u>Score</u> |
|-------------------------|----------------------|--------------|
| Other: | | |
| Communications Systems | 1 Total | N/A |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 1 | |
| 5. Absolutely Critical | 0 | |
| POM Cycles | 1 Total | N/A |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 1 | |
| 5. Absolutely Critical | 0 | |
| Air Force Regulations | 1 Total | N/A |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 1 | |
| 5. Absolutely Critical | 0 | |
| Common Sense | 1 Total | N/A |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 0 | |
| 5. Absolutely Critical | 1 | |
| Training | 1 Total | N/A |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 1 | |
| 5. Absolutely Critical | 0 | |

(continued on following page)

TABLE 21 (continued)
TOTAL RESPONSES TO SURVEY QUESTION #18

| <u>Functional Area</u> | <u># Respondents</u> | <u>Score</u> |
|--|----------------------|--------------|
| Data Management | 1 Total | N/A |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 1 | |
| 4. Very Important | 0 | |
| 5. Absolutely Critical | 0 | |
| Material Management | 1 Total | N/A |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 0 | |
| 5. Absolutely Critical | 1 | |
| Telecommunications Systems Connectivity | 1 Total | N/A |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 0 | |
| 5. Absolutely Critical | 1 | |
| Computer Systems Integration | 1 Total | N/A |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 1 | |
| 5. Absolutely Critical | 0 | |
| People Management | 1 Total | N/A |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 1 | |
| 5. Absolutely Critical | 0 | |

(continued on following page)

TABLE 21 (continued)
TOTAL RESPONSES TO SURVEY QUESTION #18

| <u>Functional Area</u> | <u># Respondents</u> | <u>Score</u> |
|---------------------------|----------------------|--------------|
| Organization of Resources | 1 Total | N/A |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 0 | |
| 5. Absolutely Critical | 1 | |

Table 22 below indicates the relative importance of expertise in the 16 functional areas, as perceived by the respondents. The higher the score, the more important the functional area, as perceived by the respondents in general.

TABLE 22
RELATIVE IMPORTANCE OF EXPERTISE IN FUNCTIONAL AREAS

| <u>Relative Rank</u> | <u>Functional Area</u> | <u>Score</u> |
|-------------------------------|--------------------------|--------------|
| 1 | Budget/Program Control | 4.79 |
| 2 | Acquisition Planning | 4.40 |
| 3 | Contracting | 4.15 |
| 4 | Configuration Management | 4.00 |
| 5 | Test and Evaluation | 3.89 |
| (continued on following page) | | |

TABLE 22 (continued)
RELATIVE IMPORTANCE OF EXPERTISE IN FUNCTIONAL AREAS

| <u>Relative Rank</u> | <u>Functional Area</u> | <u>Score</u> |
|----------------------|---------------------------------|--------------|
| 6 | Software Development | 3.74 |
| 7 | Site Activation | 3.40 |
| 8 | Systems Engineering | 3.16 |
| 9 | Program Mgmt. Respons. Transfer | 2.84 |
| 10 | Maintenance | 2.80 |
| 11 | Integrated Logistics Support | 2.75 |
| 12 | Reliability and Maintainability | 2.74 |
| 13 | Logistics Support Analysis | 2.63 |
| 14 | Supply | 2.60 |
| 15 | Transportation | 2.30 |
| 16 | Depot Activation | 1.89 |

In addition to determining a score (based on the mean) for each functional area, the researcher wanted to develop some measure of strength for each score. Furthermore, the researcher wanted to determine how the functional area scores compared with each other in terms of the strength measurement. The standard deviation of all responses within a given functional area was therefore used as the strength measurement for that particular functional area. The standard deviation was calculated for each of the 16 functional areas, based on respondents answers to survey instrument question #18. The

reason for calculating the standard deviation for each of the 16 functional areas was to get an idea of the respondents' "level of agreement" on the rating for a particular functional area. Table 23 which follows illustrates the reason for using the standard deviation as the measure of strength or "level of agreement" among all respondents for a particular functional area.

TABLE 23
STANDARD DEVIATION AS MEASURE OF LEVEL OF AGREEMENT

| <u>Functional Area</u> | <u># Respondents</u> | <u>Score</u> |
|-------------------------|----------------------------|--------------|
| Functional Area #1 | 20 Total | 3.00 |
| 1. Not Important At All | 4 | |
| 2. Somewhat Important | 4 | |
| 3. Moderately Important | 4 | |
| 4. Very Important | 4 | |
| 5. Absolutely Critical | 4 | |
| | (Standard Deviation: 1.45) | |
| Functional Area #2 | 20 Total | 3.00 |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 4 | |
| 3. Moderately Important | 12 | |
| 4. Very Important | 4 | |
| 5. Absolutely Critical | 0 | |
| | (Standard Deviation: 0.65) | |
| Functional Area #3 | 20 Total | 3.00 |
| 1. Not Important At All | 10 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 0 | |
| 5. Absolutely Critical | 10 | |
| | (Standard Deviation: 2.05) | |

(continued on following page)

TABLE 23 (continued)

STANDARD DEVIATION AS MEASURE OF LEVEL OF AGREEMENT

| <u>Functional Area</u> | <u># Respondents</u> | <u>Score</u> |
|-------------------------|----------------------------|--------------|
| Functional Area #4 | 20 Total | 3.00 |
| 1. Not Important At All | 7 | |
| 2. Somewhat Important | 3 | |
| 3. Moderately Important | 0 | |
| 4. Very Important | 3 | |
| 5. Absolutely Critical | 7 | |
| | (Standard Deviation: 1.81) | |
| Functional Area #5 | 20 Total | 3.00 |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 20 | |
| 4. Very Important | 0 | |
| 5. Absolutely Critical | 0 | |
| | (Standard Deviation: 0.00) | |

In the previous example, the "Score" for each of the 5 Functional Areas was 3.0, however, this score of 3.0 fails to convey the following additional information. In Functional Area #1, respondents were equally divided among the 5 possible rating choices. That is, there was very minimal agreement among the respondents that Functional Area #1 was in fact Moderately Important (as indicated by the 3.0 score). In Functional Area #2, 60% of the respondents agreed on the Moderately Important rating, while 40% of the respondents indicated other ratings. That is, there was agreement among most of the respondents that Functional Area #2 was Moderately Important (as indicated by the 3.0 score). In Functional

Area #3, 50% of the respondents indicated a Not Important At All rating while 50% indicated the Absolutely Critical rating. Despite the 3.0 score, which would indicate a Moderately Important rating overall, there was total disagreement by all respondents individually with the Moderately Important rating. Functional Area #4 was similar to Functional Area #3 in that no individual respondent indicated a Moderately Important rating; however, the respondents were more divided (four different ratings) in their responses in Functional Area #4 than they were in their responses in Functional Area #3 (two different ratings). Finally, in Functional Area #5, respondents were in total agreement that Functional Area #5 was Moderately Important (as indicated by the 3.0 score).

These different levels of agreement (very minimal agreement, agreement among most, total disagreement, total agreement) as well as other different levels of agreement can be viewed in terms of the standard deviation of all responses within a particular functional area. For example, in Functional Area #1 the standard deviation is 1.451. In Functional Areas #2, #3, and #4 the standard deviations are 0.6489, 2.052, and 1.806 respectively. Finally, in Functional Area #5 the standard deviation is 0.000. In other words, generally speaking, the smaller the standard deviation, the greater the level of agreement.

Applying this calculation of standard deviation to the 16 functional areas in the survey instrument yields differing

levels of agreement for each particular functional area as to the relative importance of expertise in that particular functional area. Table 24 below indicates the different levels of agreement (as indicated by the standard deviation) for each of the 16 functional areas. The smaller the standard deviation, the stronger the level of agreement and the higher the relative rank.

TABLE 24
LEVELS OF AGREEMENT WITH RESPECT TO FUNCTIONAL AREAS

| <u>Relative Rank</u> | <u>Functional Area</u> | <u>Standard Deviation</u> |
|----------------------|---------------------------------|---------------------------|
| 1 | Budget/Program Control | 0.4189 |
| 2 | Acquisition Planning | 0.7539 |
| 3 | Contracting | 0.8127 |
| 4 | Program Mgmt. Respons. Transfer | 0.8342 |
| 5 | Configuration Management | 0.8584 |
| 6 | Test and Evaluation | 0.9366 |
| 7 | Logistics Support Analysis | 0.9550 |
| 8 | Systems Engineering | 0.9580 |
| 9 | Reliability and Maintainability | 0.9910 |
| 10 | Site Activation | 0.9950 |
| 11 | Integrated Logistics Support | 1.0200 |
| 12 | Software Development | 1.0460 |

(continued on following page)

TABLE 24 (continued)

LEVELS OF AGREEMENT WITH RESPECT TO FUNCTIONAL AREAS

| <u>Relative Rank</u> | <u>Functional Area</u> | <u>Standard Deviation</u> |
|----------------------|------------------------|---------------------------|
| 13 | Depot Activation | 1.1500 |
| 14 | Maintenance | 1.1502 |
| 15 | Transportation | 1.2180 |
| 16 | Supply | 1.3530 |

Table 25 below provides a comparison of how each of the 16 different functional areas were ranked in terms of both Score and Level of Agreement.

TABLE 25

COMPARISON OF SCORE AND LEVEL OF AGREEMENT RANKINGS

| <u>Functional Area</u> | <u>Score Ranking</u> | <u>Level of Agreement Ranking</u> |
|----------------------------|----------------------|-----------------------------------|
| Acquisition Planning | 2 | 2 |
| Contracting | 3 | 3 |
| Systems Engineering | 8 | 8 |
| Software Development | 6 | 12 |
| Logistics Support Analysis | 13 | 7 |

(continued on following page)

TABLE 25 (continued)
COMPARISON OF SCORE AND LEVEL OF AGREEMENT RANKINGS

| <u>Functional Area</u> | <u>Score Ranking</u> | <u>Level of Agreement Ranking</u> |
|---------------------------------|--------------------------|---------------------------------------|
| Reliability & Maintainability | 12 | 9 |
| Test and Evaluation | 5 | 6 |
| Budget/Program Control | 1 | 1 |
| Configuration Management | 4 | 5 |
| Integrated Logistics Support | 11 | 11 |
| Program Mgmt. Respons. Transfer | 9 | 4 |
| Site Activation | 7 | 10 |
| Depot Activation | 16 | 13 |
| Maintenance | 10 | 14 |
| Supply | 14 | 16 |
| Transportation | 15 | 15 |

The next question in Section III (Perceptions) of the survey instrument asked respondents about the perceived importance of expertise in certain logistics disciplines. The logistics disciplines had been previously identified in survey question #15 as Retail Logistics, Acquisition Logistics, International Logistics, Wholesale Logistics, and Combat Logistics. Respondents were instructed to only answer for those logistics disciplines in which they had experience. Furthermore, a respondent's answers to survey question #19

were only used in calculating the Score, if that respondent indicated experience in the same logistics disciplines in survey question #15. Survey question #19 asked respondents to rate each of 5 different logistics disciplines as either:

1. Not Important At All
2. Somewhat Important
3. Moderately Important
4. Very Important
5. Absolutely Critical

The same equation used to determine the scores for survey question #18 was used to determine the score of each logistics discipline in survey question #19.

Question #19 of the survey instrument was as follows.

"19. In your current position as a Program Manager/Deputy Program Manager, how important is expertise in the following logistics disciplines to your performance as a Program Manager/Deputy Program Manager?"

Table 26 below lists the total responses to this question.

TABLE 26
TOTAL RESPONSES TO SURVEY QUESTION #19

| <u>Logistics Discipline</u> | <u># Respondents</u> | <u>Score</u> |
|-----------------------------|----------------------|--------------|
| Retail Logistics | 8 Total | 3.38 |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 1 | |
| 3. Moderately Important | 3 | |
| 4. Very Important | 4 | |
| 5. Absolutely Critical | 0 | |

(continued on following page)

TABLE 26 (continued)
TOTAL RESPONSES TO SURVEY QUESTION #19

| <u>Logistics Discipline</u> | <u># Respondents</u> | <u>Score</u> |
|-----------------------------|----------------------|--------------|
| Acquisition Logistics | 10 Total | 3.80 |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 1 | |
| 3. Moderately Important | 2 | |
| 4. Very Important | 5 | |
| 5. Absolutely Critical | 2 | |
| International Logistics | 5 Total | 2.20 |
| 1. Not Important At All | 1 | |
| 2. Somewhat Important | 2 | |
| 3. Moderately Important | 2 | |
| 4. Very Important | 0 | |
| 5. Absolutely Critical | 0 | |
| Wholesale Logistics | 11 Total | 4.09 |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 0 | |
| 3. Moderately Important | 2 | |
| 4. Very Important | 6 | |
| 5. Absolutely Critical | 3 | |
| Combat Logistics | 6 Total | 3.17 |
| 1. Not Important At All | 0 | |
| 2. Somewhat Important | 1 | |
| 3. Moderately Important | 4 | |
| 4. Very Important | 0 | |
| 5. Absolutely Critical | 1 | |

Table 27 which follows indicates the relative importance of expertise in the five logistics disciplines, as perceived by the respondents. The higher the score, the greater the perceived importance of expertise in that particular logistics discipline.

TABLE 27
RELATIVE IMPORTANCE OF EXPERTISE IN LOGISTICS DISCIPLINES

| <u>Relative Rank</u> | <u>Functional Area</u> | <u>Score</u> |
|----------------------|-------------------------|--------------|
| 1 | Wholesale Logistics | 4.09 |
| 2 | Acquisition Logistics | 3.80 |
| 3 | Retail Logistics | 3.38 |
| 4 | Combat Logistics | 3.17 |
| 5 | International Logistics | 2.20 |

The standard deviations for the above scores were also computed in order to gauge the level of agreement among respondents for the particular logistics disciplines. It should be noted, however, that because of the relatively few and different number of respondents for each of the five different logistics disciplines (Retail Logistics - 8, Acquisition Logistics - 10, International Logistics - 5, Wholesale Logistics - 11, Combat Logistics - 6), this measure of the level of agreement may not be very accurate. Table 28 which follows indicates the different levels of agreement (as indicated by the standard deviation) for each of the five logistics disciplines. The smaller the standard deviation, the stronger the level of agreement and the higher the relative rank.

TABLE 28
LEVELS OF AGREEMENT WITH RESPECT TO LOGISTICS DISCIPLINES

| <u>Relative Rank</u> | <u>Logistics Discipline</u> | <u>Standard Deviation</u> |
|----------------------|-----------------------------|---------------------------|
| 1 | Wholesale Logistics | 0.7006 |
| 2 | Retail Logistics | 0.7440 |
| 3 | International Logistics | 0.8367 |
| 4 | Acquisition Logistics | 0.9189 |
| 5 | Combat Logistics | 0.9830 |

Table 29 below provides a comparison of how each of the five different logistics disciplines were ranked in terms of both Score and Level of Agreement.

TABLE 29
SCORE AND LEVEL OF AGREEMENT RANKINGS (LOGISTICS DISCIPLINES)

| <u>Logistics Discipline</u> | <u>Score Ranking</u> | <u>Level of Agreement Ranking</u> |
|-----------------------------|----------------------|-----------------------------------|
| Retail Logistics | 3 | 2 |
| Acquisition Logistics | 2 | 4 |
| International Logistics | 5 | 3 |
| Wholesale Logistics | 1 | 1 |
| Combat Logistics | 4 | 5 |

Survey questions #20 and #21 dealt with the respondents' perceptions of how they were selected for their present position, and how qualified they felt they were at the time of their selection. Survey question #22 concerned the respondents' job position immediately prior to assignment as a program manager or deputy program manager. Answers to these questions were in narrative form and subject to some bias on the part of the respondent. It should also be noted that not all respondents answered the narrative questions.

Survey question #20 was as follows.

"20. How were you selected for your current Program Manager/Deputy Program Manager position? Please explain."

Table 30 below provides information on the respondents' answers to this question.

TABLE 30

HOW PROGRAM MANAGERS/DEPUTY PROGRAM MANAGERS WERE SELECTED

| <u>Position</u> | <u>Grade</u> | <u>Answer</u> |
|-----------------|--------------|---|
| Program Manager | GM-15 | Worked as Deputy PM, PM was moved to a new position and I was inserted as PM. |
| Program Manager | GM-15 | I was Deputy PM and was moved (selected) and later promoted into PM position on previous program. Later, I was moved from that PM job into current PM position. |
| Program Manager | GM-14 | Supervisor decision. |

(continued on following page)

TABLE 30 (continued)

HOW PROGRAM MANAGERS/DEPUTY PROGRAM MANAGERS WERE SELECTED

| <u>Position</u> | <u>Grade</u> | <u>Answer</u> |
|-----------------|--------------|---|
| Program Manager | GM-14 | Incumbent recommended me. I worked as a "loaner" from my organization for six months, after which time I accepted the offer to stay. |
| Program Manager | GM-14 | Through competitive promotion. |
| Program Manager | GM-13 | I was selected as Program Manager after the incumbent PM transferred to another organization during a major multi-office reorganization. I was selected based on my having been the Deputy Program Manager for this program the previous 21 months. |
| Program Manager | GM-13 | Based upon prior program office/Program Manager experience. |
| Program Manager | O-6 | Availability, PM Background. |
| Program Manager | O-6 | Functional background and experience in wholesale logistics. Specifically in logistics requirements determination and programming budgeting requirements in the PPBS. |
| Program Manager | O-6 | By direction from LMSC/CC. |
| Program Manager | O-5 | Purely luck of the draw. |

(continued on following page)

TABLE 30 (continued)

HOW PROGRAM MANAGERS/DEPUTY PROGRAM MANAGERS WERE SELECTED

| <u>Position</u> | <u>Grade</u> | <u>Answer</u> |
|------------------|--------------|--|
| Deputy Prg. Mgr. | GM-14 | Appointed by the LMSC Commander because of previous experience. |
| Deputy Prg. Mgr. | GM-14 | Promotion, using the interview process. |
| Deputy Prg. Mgr. | GM-14 | Selected by civilian Assistant to LMSC/CC based on task group which I chaired. |
| Deputy Prg. Mgr. | GM-13 | I was assigned to SY when it was being formed. Based on my programming skills I presume, but actually people were needed to staff SY. As people were promoted out of the organization I naturally progressed up to Deputy Program Manager. |
| Deputy Prg. Mgr. | O-5 | Availability. Functional knowledge in supply. Familiarity with mainframe ops, ADP networks, ADP customer support. Management experience. Performance record. |

(continued on following page)

TABLE 30 (continued)

HOW PROGRAM MANAGERS/DEPUTY PROGRAM MANAGERS WERE SELECTED

| <u>Position</u> | <u>Grade</u> | <u>Answer</u> |
|-----------------|--------------|---|
| Other | GM-15 | I was competitively selected to manage the staff systems configuration office and systems engineering office. My selection to serve as the Deputy Program Manager for SC&D and subsequently as the Program Manager, and then to my current position as the Assistant Deputy for Contracting and Distribution Systems, were in grade assignments based on my experience. |
| Other | GM-15 | Based on past experience in OSD and AFSC. |
| Other | O-5 | By name to cross feed experience from ASD to LMSC. |

Respondents were also asked about how qualified they felt as either program managers or deputy program managers, at the time of their selection. Survey question #21 was as follows.

"21. At the time you were selected for your current Program Manager/Deputy Program Manager position, did you feel qualified (based on prior experience, education, training)? Please explain in terms of (a) areas in which you felt qualified and (b) areas in which you did not feel qualified."

Table 31 which follows provides the respondents' answers to part (a) of survey question #21.

TABLE 31

QUALIFIED FOR PM/DPM POSITION - PM & DPM PERCEPTIONS

| <u>Position</u> | <u>Grade</u> | <u>Answer</u> |
|-----------------|--------------|---|
| Program Manager | GM-15 | Yes - Had 7 years experience on the program as Deputy PM and in Business Management. Also, had 14 years logistics experience. |
| Program Manager | GM-15 | I felt qualified from a business standpoint. |
| Program Manager | GM-14 | The job was a perfect match for my prior experience, especially communications (DDN, UNIX based gateways, LANs), software (UNIX, "C"), and hardware (3B2 and other UNIX hosts, MAC). |
| Program Manager | GM-14 | My experience as the technical OPR for the basic modeling software tools used in my SPO helped me on the job. |
| Program Manager | GM-14 | Felt I was qualified from a technical aspect. |
| Program Manager | GM-13 | I felt qualified to be Program Manager at the time of my selection based on (1) I had nearly 4 years (46 months) continuous experience as Business Manager and Deputy Program Manager on this program. (2) The major portion of the program had already reached IOC and the balance of the program was within 6 months of reaching FOC. (3) I inherited the existing program office staff which had brought the program along this far. |

(continued on following page)

TABLE 31 (continued)

QUALIFIED FOR PM/DPM POSITION - PM & DPM PERCEPTIONS

| <u>Position</u> | <u>Grade</u> | <u>Answer</u> |
|------------------|--------------|---|
| Program Manager | GM-13 | Yes I felt qualified. |
| Program Manager | O-6 | Qualified in general PM duties. |
| Program Manager | O-6 | Yes, in terms of my functional background. |
| Program Manager | O-6 | No areas! |
| Program Manager | O-5 | In my case, I am a near perfect fit for this project because I can apply knowledge acquired over my entire career to this SPO. However, that is still more by chance than design. |
| Deputy Prg. Mgr. | GM-14 | Yes, all areas. |
| Deputy Prg. Mgr. | GM-14 | I had prior experience in planning, funding, acquisition, CD/DM, site activation, testing, etc. |
| Deputy Prg. Mgr. | GM-14 | Prior experience of understanding the Air Force need for the system. |
| Deputy Prg. Mgr. | GM-13 | Was qualified based on knowledge of the program as I was with it from the start. |
| Deputy Prg. Mgr. | O-5 | Management, supervision, customer requirements. |

(continued on following page)

TABLE 31 (continued)

QUALIFIED FOR PM/DPM POSITION - PM & DPM PERCEPTIONS

| <u>Position</u> | <u>Grade</u> | <u>Answer</u> |
|-----------------|--------------|---|
| Other | GM-15 | Yes. When I was appointed as Program Manager for the SC&D program and in my current position as Assistant Deputy for Contracting and Distribution Systems (in my current position three major programs report to our organization) I had already served in a number of positions that gave me the experience I needed. Areas qualified: Systems Engineering, Configuration Management, Program Control (Cost/Schedule Management), and Economic Analysis. |
| Other | GM-15 | Overall acquisition, I feel qualified. |
| Other | O-5 | Qualified to manage a program. |

Table 32 below provides the respondents' answers to part (b) of survey question #21. The question was as follows.

"21. At the time you were selected for your current Program Manager/Deputy Program Manager position, did you feel qualified (based on prior experience, education, training)? Please explain in terms of (a) areas in which you felt qualified and (b) areas in which you did not feel qualified."

TABLE 32

NOT QUALIFIED FOR PM/DPM POSITION - PM & DPM PERCEPTIONS

| <u>Position</u> | <u>Grade</u> | <u>Answer</u> |
|------------------|--------------|--|
| Program Manager | GM-15 | I lacked technical/functional experience and knowledge. |
| Program Manmager | GM-14 | Configuration Management, and program management regulations (and knowledge of same) were my weak areas. |
| Program Manager | GM-14 | Did not have the proper skills to manage a large acquisition. |
| Program Manager | GM-13 | I did not, and still do not, feel qualified in the technical areas of application systems software programming and system administration. Fortunately for me, and the Air Force, the personnel responsible for these areas are willing to continue working them. |
| Program Manager | O-6 | Not qualified in Software Development and PM which is different from A/C acquisition. |
| Program Manager | O-6 | No, in terms of knowing anything about software development. |
| Program Manager | O-6 | Contract Administration. Systems Acquisition. Business Management. Configuration Management. Software Development. Systems Engineering. |

(continued on following page)

TABLE 32 (continued)

NOT QUALIFIED FOR PM/DPM POSITION - PM & DPM PERCEPTIONS

| <u>Position</u> | <u>Grade</u> | <u>Answer</u> |
|------------------|--------------|--|
| Deputy Prg. Mgr. | GM-14 | Basically, my background centered on program management tasks and I had to <u>learn</u> the "functionality" of the system. |
| Deputy Prg. Mgr. | GM-13 | Did not feel comfortable dealing with contracts, money matters, etc. That was a new arena. |
| Deputy Prg. Mgr. | O-5 | Program management in terms of cost/schedule, and terminology. |
| Other | GM-15 | Areas where I was less qualified: Communications Technology. |
| Other | GM-15 | Engineering disciplines - hard engineering. |
| Other | O-5 | Not qualified in the details of the LMS programs. |

Question #22, the last question in Section III (Perceptions) of the survey instrument, dealt with the respondents' positions immediately prior to their current program management assignments. The question was as follows.

"22. What position did you hold prior to your assignment as a Program Manager/ Deputy Program Manager?"

Table 33 which follows contains the responses to this survey question.

TABLE 33
POSITION HELD PRIOR TO PM/DPM ASSIGNMENT

| <u>Current Position</u> | <u>Grade</u> | <u>Prior Position</u> |
|-------------------------|--------------|--|
| Program Manager | GM-15 | Deputy Program Manager |
| Program Manager | GM-15 | Deputy Program Manager for same program office. |
| Program Manager | GM-14 | Program Manager, Automated Tech Order System. Deputy Program Manager, CYBER Rehost. |
| Program Manager | GM-14 | GS-1515-13 Ops Research Analyst. |
| Program Manager | GM-14 | Chief, System Software Branch. |
| Program Manager | GM-13 | Deputy Program Manager for this program. |
| Program Manager | GM-13 | Program Manager on a smaller program. |
| Program Manager | O-6 | AFLC Chair to A.U. |
| Program Manager | O-6 | Director of Distribution, Defense Depot (DLA). |
| Program Manager | O-6 | Director of Metrology, AGMC. |
| Program Manager | O-5 | Director of Communication/Computer Systems Engineering at Foreign Technology Division. |
| Deputy Prg. Mgr. | GM-14 | Logistics Plans and Programs. |
| Deputy Prg. Mgr. | GM-14 | Chief, Business Management Division. |
| Deputy Prg. Mgr. | GM-14 | System Analyst validating requirements. |

(continued on following page)

TABLE 33 (continued)
POSITION HELD PRIOR TO PM/DPM ASSIGNMENT

| <u>Current Position</u> | <u>Grade</u> | <u>Prior Position</u> |
|-------------------------|--------------|--|
| Deputy Prg. Mgr. | GM-13 | System Administrator (which I still hold). |
| Deputy Prg. Mgr. | O-5 | Chief of Supply/ NATO Squadron Commander/ Chief of Base Computer Support. |
| Other | GM-15 | I was chief of the Configuration Management and Engineering Support Division. |
| Other | GM-15 | Deputy Director of Plans and Programs, DCS Product Assurance and Acquisition Logistics (AFSC). |
| Other | O-5 | Missile maintenance. |

The final part of the survey instrument, Section IV Recommendations, was designed to solicit recommendations from the respondents in three general areas. These three areas are as follows: (1) recommendations for enhancing the quality of AFLC acquisition program managers, (2) recommendations for modifying or improving the AFLC acquisition program manager selection process, and (3) recommendations concerning other areas which may be important to the AFLC acquisition program manager identification, selection, and training process. It should be noted that not all respondents provided recommendations for this section of the survey.

Table 34 below contains recommendations for enhancing the quality of AFLC acquisition program managers.

TABLE 34

ENHANCING THE QUALITY OF AFLC ACQUISITION PROGRAM MANAGERS

| <u>Position</u> | <u>Grade</u> | <u>Recommendation</u> |
|-----------------|--------------|--|
| Program Manager | GM-15 | Program Managers should not be PMs unless they've had previous SPO experience. I don't believe the knowledge gained in a variety of courses will help the PM as much as common sense, a can-do attitude, and an ability to work closely with a contractor yet be able to take hard stands and still remain "friends." i.e. You can teach what should and needs to be accomplished - you can't teach the other parts. Program Managers must have functional knowledge (of PM tasks) - data automation knowledge is secondary. |
| Program Manager | GM-14 | Offer more courses geared toward acquisition program management. |
| Program Manager | GM-13 | It appears to me that all too often Program Managers are selected based upon availability or being the right grade, rather than on qualifications or experience. When it comes to program management, there is no substitute for experience. |

(continued on following page)

TABLE 34 (continued)

ENHANCING THE QUALITY OF AFLC ACQUISITION PROGRAM MANAGERS

| <u>Position</u> | <u>Grade</u> | <u>Recommendation</u> |
|------------------|--------------|---|
| Program Manager | O-6 | AFIT/DSMC course developed for Software Acquisition above - separate from A/C. |
| Program Manager | O-6 | Program Managers should be sent to at least one formal training course prior to being assigned as a PM. |
| Deputy Prg. Mgr. | O-5 | A focused class on Program Management prior to assignment would ease adapting to the terminology, review process, critical management areas, etc. |
| Other | GM-15 | The professional skills an acquisition program manager needs to develop include, of course, the basic management knowledge in program management (systems management, configuration management, and systems engineering). In addition to these basic capabilities, I believe the program manager needs to have training and experience in selling programs and interpersonal relationships. He or she also needs to have general knowledge or experience in the functional (technical) area that the program is in. |

Table 35 which follows shows the recommendations provided by the respondents in the area of modifying or improving the AFLC acquisition program manager selection process.

TABLE 35

IMPROVING THE AFLC ACQUISITION PROGRAM MANAGER
SELECTION PROCESS

| <u>Position</u> | <u>Grade</u> | <u>Recommendation</u> |
|-----------------|--------------|--|
| Program Manager | GM-14 | Don't really know "current process"; so inappropriate to critique it. |
| Program Manager | O-6 | Needs structure/standards. Minimum stated qualifications and training requirement. |
| Other | GM-15 | The career program for AFLC acquisition program managers needs to be better defined. The majority of the positions we use are Program Analyst (GM345). The Information Systems Career Program has been recommending GM301, Information Systems Management Specialists. We have also used functional logistics series. Clearly program management skills can be obtained in any of the Logistics, Engineering, or Information Systems fields. Once the individual is identified as an acquisition program manager, however, there needs to be a consistent approach for career development. |

Finally, Table 36 includes respondents' recommendations concerning other areas believed to be important to the identification, selection, and training of AFLC acquisition program managers.

TABLE 36
OTHER GENERAL RECOMMENDATIONS

| <u>Position</u> | <u>Grade</u> | <u>Recommendation</u> |
|-----------------|--------------|---|
| Program Manager | O-6 | Positions must be made promotable or there is little incentive to fight for one of these demanding positions. |

This concludes the results obtained from the survey instrument. The results of the interview instrument will be reported next, followed by the answers to the research investigative questions.

Interview Results

Requests for personal interviews were sent to 10 individuals occupying senior leadership positions in AFLC. These individuals were selected because of their presumed ability to influence the AFLC acquisition program manager identification, selection, and training process, as viewed by the researcher. The interview requests were sent to both military and civilian personnel.

Interviews were conducted with four of the individuals. No response was received from the other six individuals. In no instance did any individual decline the interview. While only four individuals responded to the request for the interview, this was not surprising.

The researcher attributes this to two reasons. The first reason is that some of the individuals who did not respond may not be involved with acquisition program manager identification, selection, and training issues. The second reason deals with the dynamic nature of that whole area due to the DMR. Because regulations and directives are still being revised, and policy decisions have yet to be made, let alone implemented, some of the individuals with whom interviews were requested may have felt it premature to discuss these areas.

The small number of interviewees was not a problem, though, because the purpose of the interview instrument was to gain information concerning recent HQ AFLC policy initiatives in the area of AFLC acquisition program manager identification, selection, and training, as well as the current identification, selection, and training process. The four individuals interviewed included the senior military and civilian individuals from HQ AFLC actively working the AFLC acquisition professional development issues, as well as the senior military and civilian individuals from the LMSC actively working LMSC acquisition program manager identification, selection, and training issues. All four individuals were extremely knowledgeable and well versed in the current status of these issues.

Table 37 below provides general information about those individuals interviewed. The two LMSC interviewees were jointly interviewed in a single interview.

TABLE 37
INDIVIDUALS INTERVIEWED

| <u>Office Symbol</u> | <u>Military/Civilian</u> | <u>Comments</u> |
|----------------------|--------------------------|---|
| AFLC/CV | Military | Vice Commander; AFLC Member of SAF/AQ Acquisition Professional Development Council |
| AFLC/DPC | Civilian | Head of AFLC Civilian Personnel |
| AFLC/SCZ | Civilian | Represented LMSC/CC |
| AFLC/SCZ | Military | Represented LMSC/CC |

In the researcher's opinion, these individuals were in positions of authority and responsibility to provide sufficient information to answer the applicable investigative questions. For example, AFLC/CV is a member of the Acquisition Professional Development Council (APDC). The APDC was established by SAF/AQ in February 1990 to implement a July 1989 DMR requirement to develop military and civilian acquisition professional development programs. The APDC is currently involved with developing a new Civilian Acquisition Career Program for Program Managers (4:1).

Also, the two LMSC individuals interviewed are directly involved with LMSC program management policy and implementation. Because the LMSC individuals were interviewed jointly, the interview results will indicate a single LMSC

response to the questions. It should also be mentioned that all interviews conducted were personal interviews, and that the researcher took notes to record the interviewees' responses. For this reason, the interview results recorded in this research are not necessarily direct quotations from the respondents, but are rather transcribed from the researcher's notes taken during the interview sessions. All notes were read back to the interviewee for verification of accuracy.

The first two questions dealt with the need for AFLC acquisition program managers, and were based on the following assumption. Given that AFLC has been identified as an acquisition command in DODI 5000.2, and that acquisition is now part of the AFLC mission, there is a need for AFLC acquisition program managers. Based on this assumption, AFLC acquisition program managers are found in two primary areas:

- a. First, they are the program managers assigned to the Logistics Management Systems Center (LMSC) who are responsible for the new systems being brought on line by the LMSC.
- b. Second, they are the program managers assigned to the Air Logistics Centers (ALCs) who are responsible for the modification programs and other acquisition programs (such as the 60K Loader program).

The first question was as follows.

"1. Do you believe that there exists a need for AFLC acquisition program managers? If yes, why? If no, why not?"

Table 38 provides the responses to this question.

TABLE 38

THE NEED FOR AFLC ACQUISITION PROGRAM MANAGERS

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|--|
| AFLC/CV | Yes, because of AFLC's involvement with programs which require acquisition skills. These programs could involve major program acquisitions, LMSC acquisition programs, small modification programs, or major modification programs. |
| AFLC/DPC | Yes, for two reasons. First, because of the DOD and Secretary of the Air Force direction. Second, because AFLC individuals are involved with the acquisition process of both AFLC-managed and AFSC-managed programs. |
| LMSC | Yes, because of the risk associated with acquisition programs. In the past, we were able to manage, or contain, this risk by using lots of people and lots of dollars to try and cover all possibilities. However, with the shrinking budgets of today and tomorrow, we're going to have to manage this risk with information. The acquisition program managers will have to know what information to gather, and know how to respond to what that information says. |

Interviewees were then asked a follow-up question.

"2. If you answered "Yes" to Question #1, do you believe that the areas identified in I.a. and I.b. above have the most critical need for acquisition program managers within AFLC? If yes, why? If no, why not?"

The answers to this question are recorded in Table 39 which follows.

TABLE 39

THE CRITICAL NEED FOR ACQUISITION PROGRAM MANAGERS

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|--|
| AFLC/CV | <p>Yes, because of the acquisition skills required to manage these programs. Individual programs such as the 60K Loader program, the LMSC programs, and modification programs all involve some technical risk. You also have to be able to successfully manage the cost, schedule, and performance aspects of all these programs. One other important point needs to be mentioned, and that is that AFLC definitely has a need for individuals with acquisition program skills and experience. However, AFLC does not, I believe, have the same requirement to internally develop a group of acquisition program managers as does AFSC. Because of our role in the acquisition process, which is usually as the supporting command, our lower grade civilians (GS-11, GS-12, GS-13) and military (O-3, O-4, O-5) are most frequently involved with the acquisition process; and these AFLC people do require the same acquisition skills and the same acquisition training as their counterparts in AFSC. However, because AFLC's primary mission is not acquisition, we do not make it a priority to specifically develop acquisition program managers. If we have a need for a program manager, such as we did on the 60K Loader program, we will often go to AFSC and ask them to give us one of their people trained in acquisition program management; this is exactly what we did on the 60K Loader program.</p> |
| AFLC/DPC | <p>Yes, because those are the areas where acquisition programs are managed.</p> |

(continued on following page)

TABLE 39 (continued)

THE CRITICAL NEED FOR ACQUISITION PROGRAM MANAGERS

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|--|
| LMSC | Yes, because that is where AFLC's acquisition programs are. The LMSC currently manages 14 acquisition programs, with a program manager and deputy program manager assigned to each. Now some of these programs are larger than others. For example, under the new Program Executive Officer (PEO) structure, 7 of the 35 total Air Force PEO programs fall under the Information Systems PEO. Of these 7 Information Systems programs, 4 are managed by the LMSC. So, you see, we are definitely involved with acquisition program management. |

A second follow-up question was also asked.

"Are there any additional areas within AFLC where you feel acquisition program management expertise is required?
If yes, why?"

The answers to this question are recorded in Table 40 on the following page.

TABLE 40

ADDITIONAL AREAS REQUIRING PROGRAM MANAGEMENT EXPERTISE

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|---|
| AFLC/DPC | <p>There are some acquisition related positions in the AFLC/PM area. While no programs are directly managed out of the AFLC/PM area, some of those people are, or will be, designated as members of the "acquisition corps" and require expertise in acquisition management areas. There is not, though, a specific requirement for acquisition program managers or deputy program managers in AFLC/PM. Also, individuals in the MM and MA areas should possess some acquisition expertise. This expertise is required because of MM's involvement with the major modification efforts and, to a certain extent, because of the spare/repair parts buys. Acquisition experience would be helpful for some of the MA individuals involved with depot work. In summary, while AFLC is a major participant in the acquisition process, AFLC's primary goal, though, is not acquisition. For this reason, acquisition job requirements are often secondary.</p> |
| LMSC | <p>There is perhaps some need in the International Logistics Center. Even though these people don't manage acquisition programs, it would probably be beneficial for some of them to be knowledgeable in the acquisition process. I wouldn't say that they really have a need for acquisition program managers, though.</p> |

This concluded the first section of the interview instrument which dealt with the need for AFLC acquisition program managers. The second section of the interview

instrument contained five main questions. These five questions dealt with any unique requirements of AFLC acquisition program managers in terms of job experience, education, and formal training. The first of the five questions was as follows.

"1. Do you believe that AFLC acquisition program managers have any unique requirements due to the nature of AFLC acquisition programs? If yes, what are these unique requirements?"

TABLE 41

UNIQUE REQUIREMENTS OF AFLC ACQUISITION PROGRAM MANAGERS

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|--|
| AFLC/CV | Because AFLC's acquisition program managers are involved with modifying or, in some other way, dealing with existing systems, I believe that it is very important for that individual to have had some operational experience with the system, and to bring that experience to the program management job. |
| AFLC/DPC | AFLC's acquisition efforts are primarily geared at sustaining existing weapon systems and follow-on support. Any unique requirements are a result of this role to logistically support existing systems, rather than to design, develop, and procure new systems. Most of our civilian acquisition program managers are either 346s (Logistics Management), 345s (Program Analyst), 1102s (Contracting), or 2010s (Inventory Management Specialist). |

(continued on following page)

TABLE 41 (continued)

UNIQUE REQUIREMENTS OF AFLC ACQUISITION PROGRAM MANAGERS

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|--|
| LMSC | Because the LMSC acquisition programs are tied to specific functional areas of logistics, and to the communications and computer systems, our program managers, and deputy program managers in particular, should have some background in that functional area related to their program. |

The second of the five questions concerned previous job experience, and was as follows.

"2. What previous job experience do you believe AFLC acquisition program managers should have? Please answer in terms of civilians who might serve as acquisition program managers, and in terms of military who might serve as acquisition program managers."

TABLE 42

PREVIOUS JOB EXPERIENCE REQUIREMENTS

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|--|
| AFLC/CV | Whether military or civilian, it's highly desirable for the individual to have some program management experience, perhaps in acquisition logistics. Any previous experience or training in acquisition is desired. We'd also like the individual to have received this experience at multiple locations, such as one of AFSC's product divisions and an Air Logistics Center. |

(continued on following page)

TABLE 42 (continued)

PREVIOUS JOB EXPERIENCE REQUIREMENTS

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|--|
| AFLC/DPC | Before becoming a major program manager, an individual should have a certain number of years of experience in the acquisition process. This is all being addressed in AFLC's Acquisition Professional Development Program, which is currently in work. |
| LMSC | In the LMSC, our philosophy is that the program manager should be 80% management ability and 20% technical ability. There is heavy emphasis on the deputy program manager being the primary technical source. We like all the program managers and deputies to have some functional experience. In certain cases where the user will be predominantly "blue suit", we try and put a military member in as the program manager to facilitate this customer-provider relationship. |

The third of the five questions dealt with formal training requirements, and was as follows.

"3. Generally speaking, in what areas do you believe AFLC acquisition program managers should receive some formal training? Why?"

Table 43 which follows contains the responses to this question.

TABLE 43

DESIRED FORMAL TRAINING

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|--|
| AFLC/CV | We need to send more people to the DSMC Program Manager Course. |
| AFLC/DPC | <p>The biggest issue right now concerns whether or not DSMC's Program Manager Course should be required only for program managers of major programs. If so, what about training for program managers of less than major programs? This gets into different certification levels, etc., and should be resolved once the Acquisition Professional Development Program is finalized. Another problem related to DSMC is that we often send the wrong people. It's not that we don't get enough slots, but too often we try to send someone after they've assumed their program manager position. The program manager is unable to attend (which results in five months away from the job), so we end up sending an individual other than a program manager. The person we send is available, but may not necessarily need the course. We need to do a better job of managing the process, so program manager selectees are sent to DSMC prior to assuming their program manager responsibilities.</p> |
| LMSC | <p>Because of the nature of LMSC acquisition programs, we'd like to send as many of our people as possible to the DOD Computer Institute (DODCI) where they learn about the communications and computer systems program management process. Acquisition of these systems is managed in accordance with the AFR 700 series and DOD 7000 series regulations, so the DSMC Program Manager Course may not be the best source of training for our people. But with the DMR and the move to put all acquisition under the AFR 800 series and new DOD 5000 series regulations, this might possibly change.</p> |

The fourth of the five questions in Section II dealt with the desired level of formal education. The question was as follows.

"4. Generally speaking, what level of education do you believe is desirable for AFLC acquisition program managers? Why?"

Table 44 below provides the responses to this question.

TABLE 44
FORMAL EDUCATION LEVEL

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|---|
| AFLC/CV | While it's difficult to say categorically that acquisition program managers need to have an advanced degree, I believe very strongly that, if an individual has an advanced degree, that degree needs to be applicable to the job to be of greatest value. This is where the AFIT graduate programs are particularly valuable to the Air Force. Whereas the AFIT graduate might be less than satisfied because he does not possess the same "name" recognition as a graduate of Stanford or MIT, as the potential employer of that graduate in the Air Force, I know that the education and skills he has received at AFIT are directly and immediately applicable to the job I have for him. |
| AFLC/DPC | There is a strong desire for program managers to have at least a B.S. degree. Because the military officers have the degree, there is a strong belief that civilians in similar positions in acquisition program management should also possess the degree. |

(continued on following page)

TABLE 44 (continued)
FORMAL EDUCATION LEVEL

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|---|
| LMSC | While we believe it's desirable to have an applicable follow-on degree, it's difficult to say you must have a masters degree, without carefully looking at how applicable that degree is to your present or future positions. |

The fifth part of Section II of the interview instrument gave the interviewees the opportunity to provide any additional comments relative to job experience, formal training, or education. The results are presented in Table 45 below.

TABLE 45
COMMENTS ON EXPERIENCE, TRAINING, OR EDUCATION

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|--|
| AFLC/DPC | The draft DOD 5000.52 addresses these areas. Most of AFLC really only require the lower levels of acquisition training. This is all still in a state of flux, though. It is critical, though, to match the appropriate Certification Level with the job. |

(continued on following page)

TABLE 45 (continued)
COMMENTS ON EXPERIENCE, TRAINING, OR EDUCATION

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|---|
| LMSC | While the LMSC is not in the business of training acquisition program managers, we do have a need for trained, experienced program managers. What we've done is to develop an orientation program for our new people which either exposes them to for the first time, or hopefully reinforces, acquisition management skills. Obviously this isn't a full blown training course, but it does highlight many areas such as program management in general, the program review process, RFP development, source selection, configuration management, data management, software testing, CSSR reporting, and several other areas. By tailoring this orientation to LMSC programs, we've found it to be very beneficial. |

Whereas Section II of the interview instrument dealt with desired levels of job experience, formal training, and formal education for AFLC acquisition program managers, Section III, which consisted of three questions, concentrated on the AFLC acquisition program manager identification and selection process. The first question in Section III was as follows.

"1. To the best of your knowledge, does there currently exist an established procedure for identifying and selecting individuals (military or civilian) to fill AFLC acquisition program manager positions? If yes, please describe the procedure to the best of your ability."

The responses to this question are recorded in Table 46 which follows.

TABLE 46

THE ESTABLISHED IDENTIFICATION AND SELECTION PROCESS

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|--|
| AFLC/CV | The civilian positions are worked and filled competitively through the existing civilian personnel system. The military positions are handled a little differently. There are certain acquisition management military positions which the AFLC commander personally approves, such as Deputy Program Managers for Logistics, the program manager jobs in the LMSC, and the System Program Managers at the ALCs. |
| AFLC/DPC | Yes, there is a process, although it's not specifically geared to acquisition program manager identification and selection. It's the same three-step process used for all civilian personnel requirements in AFLC. First, the position is identified based on a justified need. Second, various candidates are identified for the position. Third, the position is filled based on a competitive selection. This competitive selection for program manager positions is presently based primarily on the functional requirements of the program to be managed. Not much attention has been given to prior program manager experience. There is a "broad based logistician" philosophy which AFLC presently considers important for its program managers. Civilian mobility is also considered. |
| LMSC | There really isn't a formal process just for the acquisition program managers, they're handled the same as the other positions. Civilians compete on a best qualified basis, as do the military. The LMSC commander approves all program manager selections, and then forwards the names to AFLC command section for final approval. The real identification and selection, though, is done through the current personnel systems. |

The second question in Section III dealt with placing either a civilian or military member in an acquisition program manager position. The question was as follows.

"2. What do you believe is the rationale for designating a particular acquisition program manager position as a civilian position as opposed to a military position, or vice versa?"

The responses to this question are provided in Table 47 below.

TABLE 47

CIVILIAN VS. MILITARY PROGRAM MANAGER POSITIONS

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|---|
| AFLC/CV | There really isn't any established procedure for designating program manager positions as either military or civilian. It's basically on a best-qualified basis. Because the SPMs at the ALCs deal very heavily with military units in the field, these SPM positions are normally filled with a military member, although that doesn't always have to be the case. |
| AFLC/DPC | Any particular designation is primarily a function of the fact that AFLC is 90% civilian and 10% military. Also, there are very few lower level military officers, and therefore fewer military available to fill the program manager positions. |
| LMSC | As mentioned earlier, a military member is often appointed program manager on those programs which have a high concentration of military users. Some of our systems which are used by operational units at the base support level fall into this category. |

The final question in Section III of the interview instrument queried respondents about any personal recommendations for improving the current process. The question was as follows.

"3. Do you have any recommendations for improving the AFLC acquisition program manager identification and selection process? If yes, what are they?"

Table 48 below shows the responses.

TABLE 48

RECOMMENDATIONS FOR IMPROVING THE CURRENT PROCESS

| <u>Respondent</u> | <u>Answer</u> |
|-------------------|--|
| AFLC/CV | The major recommendation I have is to increase the acquisition related education and training of AFLC personnel. As I mentioned earlier, this should be geared toward improving the acquisition skills of the lower level grades who do most of AFLC's acquisition work. |
| AFLC/DPC | The only recommendation I have is to not create a totally new system for managing the civilian acquisition program managers and other acquisition personnel. Currently, an individual is selected from any of the different civilian personnel programs, such as LCCEP, to fill an acquisition program manager position. There is a proposal in work to create a separate acquisition professional program whereby civilians would fall under one of the other programs such as LCCEP until a certain point, at which time they would be transferred to the acquisition professional program. I don't think that creating a new civilian personnel program is the answer in this case. |

Section IV of the interview instrument gave the respondents the opportunity to provide any additional comments which might be relevant to the AFLC acquisition program manager identification, selection, and training process in general. However, all respondents indicated that they had already included any related comments in their answers to previous questions during the course of the interview. Therefore, no results are presented for Section IV of the interview instrument.

After reviewing the results of the literature review, together with the results of both the survey instrument and the interview instrument, it was then possible to answer the investigative questions posed at the outset of this research.

V. Summary and Recommendations

Introduction

This chapter presents a brief summary of the research findings, discussed in terms of answers to the seven investigative questions presented in Chapter I. Additionally, the researcher's conclusions about these findings are incorporated into the summary. Finally, the researcher presents several recommendations for further study.

Summary

The results as they apply to each investigative question will be summarized individually, although some information may be used to answer more than one investigative question. In addition, even though the answers to the investigative questions may allude to possible recommendations, actual discussion of these recommendations will be contained in the Recommendations section of this chapter.

Investigative Question #1. The first investigative question dealt with AFLC's approach to the acquisition management process. The question was as follows.

- 1) What has been the AFLC approach to the acquisition program management process, and how does that compare to the AFSC approach to the acquisition program management process?

This question was answered primarily through the literature review, although additional insight was gained during the interview with the LMSC personnel. A research of applicable regulations indicated that AFLC has used several different approaches to the acquisition program management process, and these different approaches have been dependent on the specific type of policy perspective involved. Program management in the Operational Requirements arena has been accomplished in accordance with AFR 57-4. Logistics Management policy dictates that program management follow the guidelines of AFR 400-3. Acquisition management (accomplished within the AFSC System Program Offices) such as acquisition logistics has followed the AFR 800 series regulations, and the AFLC acquisition program management of communications and computer systems has been done according to AFR 700-4. These multiple approaches to program management are in contrast with the AFSC approach. AFSC has traditionally followed a systems approach to acquisition program management, done in accordance with AFR 800-2.

This research concentrated on HQ AFLC acquisition program managers, that is, program managers assigned to the LMSC. These program managers are involved with the acquisition of communications and computer systems and therefor follow the program management guidelines set forth in the AFR 700 series regulations. However, one of the initiatives to come out of the Defense Management Review is to bring all acquisition

program management under the DOD Directive 5000.1 and DOD Instruction 5000.2. USAF program management policy, in turn, would be found in the AFR 800 series regulations.

Comments offered by interviewed LMSC personnel, however, indicate that there still is some resistance from the LMSC to this DODD 5000.1/DODI 5000.2/AFR 800 series approach to acquisition program management. It remains to be seen, in the opinion of the researcher, how much of this opposition is justifiable due to the unique nature of communications and computer systems acquisition, and how much of this opposition stems from a parochial belief that these systems should be managed differently because they've been managed that way in the past.

As of this writing, the issue has not been finalized in terms of any new published DOD and/or USAF program management policy, although the new guidance is scheduled to be formalized by the end of 1990. Until such time as the new guidance is published, whether or not AFLC establishes a single approach to acquisition program management remains unresolved.

Investigative Question #2. The second investigative question concerned the acquisition programs managed by AFLC. The question was as follows.

- 2) Which acquisition programs are managed by AFLC and, more specifically, which of these programs are managed by HQ AFLC program managers at the LMSC?

This answer to this question was obtained through the literature review and the interview instrument. AFLC manages several types of acquisition programs, although not all programs involve the acquisition of new systems. First, various types of modification and upgrade programs are managed by AFLC program managers at the different ALCs. Second, other types of programs involving the acquisition of new systems and equipment are also managed at the ALCs. A frequently cited example of this type of program is the 60K Loader program, managed at the Warner Robins ALC. The third type of program managed by AFLC is actually managed at HQ AFLC in the LMSC. These programs involve the acquisition of communications and computer systems. The main focus of this research effort was on the identification, selection, and training of the acquisition program managers who manage this third type of program.

An interesting point brought out during the interviews was that whereas the modification and upgrade programs will often be managed by "home grown" AFLC personnel with an operational background, ALC-managed programs involving the acquisition of new systems or equipment will often be managed by a "transplant" from AFSC. This was in line with the HQ AFLC philosophy conveyed during the interviews that because part of the AFLC mission involves acquisition, AFLC personnel should be trained in acquisition skills. Furthermore, because AFLC's primary mission is not acquisition, HQ AFLC leaders do

not believe there is a strong need to specifically train acquisition program managers.

As will be discussed shortly, this lack of requirements to train a group of AFLC acquisition program managers raises a question concerning the rationale for AFLC developing an internal Acquisition Professional Career Development program. Although, the purpose of this research was not to develop this type of career development program, further research may be warranted to determine the true need for AFLC developing its own program leading to certified acquisition professionals.

Investigative Question #3. The third investigative question concerned the education, formal training, and job experience of the LMSC acquisition program managers. The question was as follows.

- 3) Who are the program managers and deputy program managers for these HQ AFLC programs, and (a) what formal education have these program managers and deputy program managers received, (b) what types of acquisition program management training have these individuals received, and (c) what past job experience do these program managers have in acquisition and logistics functional areas?

The survey instrument was the method used to gather the information necessary to answer this question.

Discussions were held with the LMSC Vice Commander to ascertain exactly who the LMSC acquisition program managers

and deputy program managers were. This information was required so that the survey instrument could be given to the appropriate individuals. The survey instrument was then mailed to the acquisition program managers and deputy program managers, although not all acquisition program managers and deputy program managers responded to the survey. Interviews conducted with LMSC personnel indicated that there are currently 14 different acquisition programs managed at the LMSC, and that each program has a program manager and deputy program manager assigned to it.

Results of the survey indicated that the majority of current program managers and deputy program managers hold an advanced degree in an academic specialty which appears to be applicable to program management responsibilities. Furthermore, of the remaining nine individuals possessing either a B.S./B.A. degree or some college, eight of these individuals have received some formal education in a specialty which is apparently applicable to either program management or the technical area with which the program is involved, such as computer programming.

More than half of all respondents had received some formal training which they believed to be applicable to acquisition program management. Specifically, 58% of the current program managers, but only 40% of the current deputy program managers, had received some formal acquisition management training. Most all of the training received was in

the form of short courses in a particular functional area such as configuration or software management, and in no instance had any more than two respondents attended the same training course. Comments by respondents on the surveys indicated that current program managers and deputy program managers found the total program management courses (such as the DSMC Program Manager Course) to be the most beneficial.

In terms of job experience applicable to acquisition program management, most of the current program managers did have some experience in acquisition programs, either as a deputy program manager, director of contracting, or business manager. In only one case, did a program manager not feel qualified in program management functional areas. However, the program managers, in many cases, did not feel qualified to manage the technical aspects of the program; the aspect most often cited being software development.

While current program managers felt qualified from a program management point of view, but not as qualified from a technical standpoint, the opposite was true with the current deputy program managers. For the most part, they felt comfortable with the technical aspects of the program, but somewhat unqualified in the program management side of the program.

Investigative Question #4. The fourth investigative question dealt with specific perceptions held by LMSC

individuals involved with acquisition program management. The question was as follows.

- 4) Based on their experience as HQ AFLC acquisition program managers, (a) what is the perceived importance by these program managers of knowledge of, or experience in, specific acquisition and logistics functional areas, and (b) what additional education, training, and job experience do these individuals believe would make them more qualified to serve as program managers?

The survey instrument was used to gather information required to answer this question. As mentioned earlier, the survey instrument was completed by LMSC acquisition program managers, deputy program managers, and several other individuals in the LMSC organization with recent LMSC program management experience.

When asked about the perceived importance of expertise in certain acquisition and logistics functional areas, there was strong agreement among all respondents that expertise in the fundamental acquisition areas was most important. These areas perceived as most important included budget/program control, acquisition planning, contracting, configuration management, and test & evaluation. Whereas there was relatively strong agreement on which functional areas were most important, this strength of agreement was not present in those areas perceived as least important.

Respondents ranked depot activation as the least important acquisition/logistics functional area where LMSC programs are concerned; this was not surprising because communications and computer systems are usually repaired at their fixed location and not sent to a depot facility. There is no reason to establish a depot repair capability for these LMSC managed systems. This is in contrast to an aircraft, for example, which would actually be sent to a depot facility for overhaul and major repair.

What was surprising, however, was that "logistics" areas were ranked well below the fundamental acquisition areas. Specifically, following depot activation as least important were transportation, supply, logistics support analysis, reliability & maintainability, integrated logistics support, and maintenance. This was surprising for two reasons. First, AFLC has, in the past, made a concerted effort to get AFSC acquisition program managers to recognize the importance of logistics areas such as integrated logistics support, reliability & maintainability, and logistics support analysis. Yet, when given the acquisition program management responsibility, AFLC program managers project the same attitudes for which AFSC program managers have been criticized.

The second reason this finding was surprising concerns the need or desire for LMSC program managers to have operational logistics experience. During the interviews,

interviewees indicated they thought it was important for AFLC acquisition program managers to be experienced in some operational logistics area such as maintenance or supply. Furthermore, many of the survey respondents indicated they had experience in areas such as supply and maintenance. However, when respondents were asked about the perceived importance of expertise in these same areas to performance as either a program manager or deputy program manager, transportation, supply, and maintenance were all ranked relatively low.

Investigative question #4 also dealt with additional formal education, training, or job experience that the respondents believe would make them more qualified to serve as program managers. Of the respondents who chose to answer the survey questions related to this subject, they indicated that program managers should either have previous experience in a program management position or in some other position in an acquisition program office; have been sent to one or more formal training courses in program management; or have a combination of both the program management experience and program management training.

While none of the respondents indicated that additional formal education (such as an advanced academic degree) would lead to more qualified program managers, formal education appears to have been considered in the program manager or deputy program manager selection process. Specifically respondents who had less than a B.S./B.A. degree, did have

some formal education in the functional speciality with which they were involved, such as computer science and data processing. Most of the respondents possessing a B.S./B.A. degree had their degree in a related functional or management discipline, such as computer science, business, or industrial management. More than half of the respondents had a master's degree and the majority of these degrees appear to have some program management application; the degrees are in academic specialties such as management, personnel management, administration, or R & D management.

Investigative Question #5. The fifth investigative question concerned perceptions of senior AFLC leaders regarding acquisition program manager experience, education, and training. The question was as follows.

5) What assignment experience, formal training, and education do the senior leaders in AFLC consider important for AFLC acquisition program managers? The interview instrument was used to gather the information required to answer this question. As mentioned earlier, although only four individuals were interviewed, the individuals were, in the researcher's opinion, the most knowledgeable in AFLC concerning current issues affecting the LMSC acquisition program managers and the other acquisition program managers in AFLC (such as at the ALCs). This knowledge comes from the interviewees' close association and involvement with policy development and implementation.

In the area of job experience, interviewees expressed the opinion that acquisition program managers have at least some program management or acquisition related experience. In the LMSC, the desired combination is about 80% program management ability and 20% technical ability. Functional experience in a particular logistics area was also considered desirable.

Formal training was thought to be an area where much could be gained through some minor process improvements. The interviewees all expressed the opinion that formal program management training was very important. Equally important, however, was that acquisition program managers receive the training prior to assuming their program management duties. The LMSC has developed an internal orientation course for its program management personnel which, while not designed to be a basic program management course, does supplement general program management courses with LMSC-specific information.

Formal education was not perceived as an area which required a lot of attention, because the system appears to be working. Program managers, for the most part, have educational backgrounds which are applicable to either their program management responsibilities or functional areas. Interviewees expressed the desire that a continuing effort be made to ensure that advanced degrees are applicable to an individual's job responsibilities.

Investigative Question #6. The sixth investigative question concerned the existing AFLC program manager

identification and selection process. The question was as follows.

- 6) What is the current process for identifying and selecting HQ AFLC program managers, how does this compare to the AFSC program manager selection process, and why do differences, if any, exist?

All interviewees stated that there was not a specific process in place solely for the purpose of identifying and selecting program managers. The program manager positions were filled through the existing military and civilian personnel system processes.

On the military side, this contrasts with the AFSC acquisition professional development program, which is designed to prepare individuals for increasing program management responsibilities through a certification process based on certain levels of education, training, and job experience. The differences between the AFLC and AFSC processes result from fundamental differences between the commands' missions. AFSC's primary mission is acquisition, therefore they perceive a specific need to develop and train acquisition program managers. AFLC's primary mission is not acquisition, therefore they do not perceive the specific need to develop and train acquisition program managers. But because AFLC is very much involved with the acquisition process, they do perceive a need to train many AFLC personnel in areas of the acquisition process.

A review of the education, training, and job experience of AFLC acquisition program managers indicates that the AFLC policy of using the existing military and civilian personnel systems for program manager identification and selection, appears to be working rather well. One area of possible improvement, already discussed, is the area of program management training, but this improvement must be made through changes in the training process, not through changes in the identification and selection process.

Investigative Question #7. The final investigative question dealt with current AFLC initiatives in the area of acquisition program manager identification, selection, and training. The question was as follows.

- 7) What initiatives are currently in work within AFLC to
- (a) meet the unique needs of AFLC acquisition program managers,
 - (b) ensure that the best qualified individuals are selected as acquisition program managers, and
 - (c) meet the requirements of the DMR in terms of establishing a dedicated acquisition corps for military and civilian personnel?

There is one major initiative currently in work at AFLC which addresses all three parts of this question. In July 1989, the DMR directed the development of military and civilian acquisition professional development programs. To implement these programs in the Air Force, SAF/AQ directed the establishment of the Acquisition Professional Development

Council, of which AFLC/CV is a member (4:1). AFLC, in turn, has been involved with the development of an Acquisition Program Management Civilian Career Program.

While this career program will not be limited to just AFLC personnel, it will include all AFLC personnel identified as members of the acquisition workforce, or acquisition corps. The program has been proposed as a three level certification program, and any acquisition program manager must be certified in all levels. Increasing levels of certification will require increasing levels of education, training, and experience. AFLC has, as part of this effort, tentatively identified 78 acquisition program managers who would require certification. Of these 78, 13 have been identified as military positions and 65 have been identified as civilian positions. These 78 acquisition program managers, however, are located at either the Air Logistics Centers or AFLC's Logistics Operations Center; the acquisition program managers at the LMSC are not included in this number, even though some of the LMSC acquisition programs receive high level USAF and DOD attention.

It should be stressed that these numbers are tentative, and that the entire acquisition professional development program effort is far from complete. Its impact on HQ AFLC acquisition program managers can be evaluated only after this program has been approved and implemented. The important point is that progress is well underway in this area.

Recommendations

Due to the ongoing activity throughout the DOD in the area of acquisition professional development initiatives, the situation today will certainly be different six months from now or a year from now. It is reasonable to assume that by the middle of 1991 these DMR directed initiatives will have been approved and implemented. At that time, further research in the area of HQ AFLC acquisition program manager identification, selection, and training would be warranted.

This research would be recommended in several general areas. First, the seven investigative questions used in this research could be looked at again in light of the new DOD acquisition professional development program. Specific attention might be paid to whether or not acquisition program management is performed throughout AFLC in accordance with one series of regulations, the new AFR 800 series. In addition, research might be performed to determine whether or not the DOD acquisition professional development program had been tailored to meet any unique requirements of AFLC acquisition program managers, and if so, why.

A second general area of recommended research would involve the scope of the research population. This research concentrated only on LMSC acquisition program managers. Further research which would apply the investigative questions across the entire spectrum of AFLC acquisition program managers should merit some consideration. This entire

spectrum would include acquisition program managers from the LMSC, the Air Logistics Centers, and other AFLC organizations which might be in existence at that time.

A final general area of recommended research would involve the comparison of civilian and military acquisition program managers within AFLC. The DOD acquisition professional development program is geared toward developing a professional, dedicated acquisition corps, without respect to whether one is civilian or military. It would be interesting to know if being a member of this dedicated acquisition corps was viewed with the same importance by both the military and civilian leadership.

Conclusion

The entire acquisition process has been under scrutiny for several years, but never in recent memory have such sweeping changes been recommended as are currently proposed and, apparently, on their way to implementation. Establishment of a single DOD acquisition professional development program is designed to create a corps of experienced, well trained, well educated, acquisition personnel. While AFLC does not view acquisition as its primary mission, this research indicates that AFLC has done a good job to date in providing the LMSC with experienced, well educated, acquisition program managers. It is hoped that current initiatives, such as the DOD acquisition professional

development program, will not only further improve the quality of these military and civilian AFLC acquisition program managers by providing them with the required training, but will also enhance their potential for career advancement in the acquisition workforce.

Appendix A: Survey Cover Letter and Questions

Cover Letter

From: LMSC/CV

Subj: Survey of LMSC Program Managers and Deputy Program
Managers

To: Distribution

1. A student in AFIT's Graduate Logistics Management program is conducting research in the area of "AFLC Acquisition Program Manager Identification and Selection." Because the majority of AFLC acquisition Program Managers and Deputy Program Managers are here in the LMSC, we are the logical choice as the primary source of information for this study.

2. I would like you to take a few minutes to fill out the attached survey and return it in the pre-addressed envelope by 23 May 1990. Again, because AFLC PMs and Deputy PMs are relatively few in number, each respondent is vital to the research.

3. If you have any questions about the survey, or the project in general, you can contact Capt Frank Rupp, AFIT/LSG, at 58989. Thanks for your prompt response to this request.

ALBERT M. RAMROTH
Colonel, USAF
Vice Commander

1 Atch
Survey

Survey Questions

Note: As referred to in these questions, "AFLC acquisition program manager" is defined as "the one individual who has program management responsibility for the acquisition of new systems or equipment, to include modification programs." For purposes of these questions, this does not include those individuals responsible for the day-to-day management of fielded systems for which Program Management Responsibility Transfer has occurred.

I. Demographic Information

1. What is your rank/grade? (Check one)

Military:

- a. O-1/O-2 _____
- b. O-3 _____
- c. O-4 _____
- d. O-5 _____
- e. O-6 _____
- f. O-7 and above _____
- g. E-7 _____
- h. E-8 _____
- i. E-9 _____
- j. Other (please specify) _____

Civilian:

- a. GS-9 _____
- b. GS-11 _____
- c. GS-12 _____
- d. GS-13 _____
- e. GM-13 _____
- f. GM-14 _____
- g. GM-15 _____
- h. SES _____
- i. Other (please specify) _____

2. Sex. (Check one)

- a. Female _____
- b. Male _____

3. Age. (Check one)

- a. 21/under _____
- b. 22 to 25 _____
- c. 26 to 30 _____
- d. 31 to 35 _____
- e. 36 to 40 _____
- f. 41 to 45 _____
- g. 46 to 50 _____
- h. 51 to 55 _____
- i. 56 to 60 _____
- j. 61 to 65 _____
- k. 66 to 70 _____
- l. 71 or over _____

II. Background

4. Level of formal education (please check all that apply).

- a. High School Graduate/GED _____
- b. Some Undergraduate College Courses _____
Approximately how many semester hours completed (if applicable)? _____
Approximately how many quarter hours completed (if applicable)? _____
Pursuing what major area(s) of study _____

- c. Associates Degree(s)
Degree received in what academic speciality? _____

- d. B.S./B.A. Degree(s)
Degree received in what academic speciality? _____

- e. Master's Degree(s)
Degree received in what academic speciality? _____

- f. Doctorate(s)
Degree received in what academic speciality? _____

- g. Other (Certificates from trade schools, etc.) _____
Certificate received in what specialization? _____

5. What is your present job series classification (civilian) or Air Force Speciality Code (military)?

Civilian (ex. 346-xx, etc.) _____

Military (ex. 4016, 6624, etc.) _____

6. What job series classifications or Air Force Specialty Codes have you previously held, and for how long?

Job Series/Air Force
Specialty Code
How Long

Functional Area

| | |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

7. Do you currently occupy a Program Manager/Deputy Program Manager position?

a. Program Manager _____

b. Deputy Program Manager _____

8. How long have you been in your current position (check one)?

a. Less than 6 months _____

b. 6 months to 12 months _____

c. 13 months to 24 months _____

d. 25 months to 36 months _____

e. More than 3 years (please specify) _____

9. Please list formal training you have received which you believe is applicable to your responsibilities as a Program Manager/Deputy Program Manager?

(Include courses from Defense Systems Management College, Air Force Institute of Technology, other Services, etc.)

10. Not including your present position, have you held any other positions in an acquisition program office (ex. program manager, project officer, etc.)?

- a. Yes _____
- b. No _____

11. If Yes, please list the position(s).

12. If Yes, to what Major Command/Organization were you assigned (check one or more, as applicable)?

- a. Air Force Systems Command _____
- b. Air Force Logistics Command _____
- c. Air Force Communications Command _____
- d. Electronic Security Command _____
- e. Defense Logistics Agency _____
- f. Other (please specify) _____

13. Identify the level of your previous assignments (check one or more, as applicable).

- a. Headquarters staff level _____
- b. Intermediate headquarters (numbered Air Force) _____
- c. Air Logistics Center _____
- d. AFSC Product Division _____
- e. Base level logistics support _____
- f. Base level operations (other than support) _____
- g. Other (please specify) _____

14. In which of the following functional areas do you have personal experience (check one or more, as applicable)?

- a. Acquisition Planning _____
- b. Contracting _____
- c. Systems Engineering _____
- d. Software Development _____
- e. Logistics Support Analysis _____
- f. Reliability & Maintainability _____
- g. Test and Evaluation _____
- h. Budget/Program Control _____
- i. Configuration Management _____
- j. Integrated Logistics Support _____
- k. Program Management Responsibility Transfer _____
- l. Site Activation _____
- m. Depot Activation _____
- n. Maintenance _____
- o. Supply _____
- p. Transportation _____
- q. Other (please specify) _____

15. In which of the following logistics disciplines do you have experience (check one or more, as applicable)?

- a. Retail Logistics _____
- b. Acquisition Logistics _____
- c. International Logistics _____
- d. Wholesale Logistics _____
- e. Combat Logistics _____
- f. None of the above _____

16. In your current position as a Program Manager/Deputy Program Manager, how many people do you directly supervise?

- a. 0 to 5 _____
- b. 6 to 8 _____
- c. 9 to 11 _____
- d. 12 to 15 _____
- e. 16 or more _____

17. In your current position as a Program Manager/Deputy Program Manager, how many people are in your program office (total number, including matrix organization support)?

- a. 0 to 10 _____
- b. 11 to 20 _____
- c. 21 to 30 _____
- d. 31 to 40 _____
- e. 41 to 50 _____
- f. More than 50 _____

III. Perceptions

18. In your current position as a Program Manager/Deputy Program Manager, how important is expertise in the following functional areas to your performance as a Program Manager/Deputy Program Manager?

a. Acquisition Planning

1. Not Important At All _____
2. Somewhat Important _____
3. Moderately Important _____
4. Very Important _____
5. Absolutely Critical _____

b. Contracting

1. Not Important At All _____
2. Somewhat Important _____
3. Moderately Important _____
4. Very Important _____
5. Absolutely Critical _____

c. Systems Engineering

1. Not Important At All _____
2. Somewhat Important _____
3. Moderately Important _____
4. Very Important _____
5. Absolutely Critical _____

d. Software Development

1. Not Important At All _____
2. Somewhat Important _____
3. Moderately Important _____
4. Very Important _____
5. Absolutely Critical _____

e. Logistics Support Analysis

1. Not Important At All _____
2. Somewhat Important _____
3. Moderately Important _____
4. Very Important _____
5. Absolutely Critical _____

18 (continued). In your current position as a Program Manager/Deputy Program Manager, how important is expertise in the following functional areas to your performance as a Program Manager/Deputy Program Manager?

f. Reliability & Maintainability

1. Not Important At All _____
2. Somewhat Important _____
3. Moderately Important _____
4. Very Important _____
5. Absolutely Critical _____

g. Test and Evaluation

1. Not Important At All _____
2. Somewhat Important _____
3. Moderately Important _____
4. Very Important _____
5. Absolutely Critical _____

h. Budget/Program Control

1. Not Important At All _____
2. Somewhat Important _____
3. Moderately Important _____
4. Very Important _____
5. Absolutely Critical _____

i. Configuration Management

1. Not Important At All _____
2. Somewhat Important _____
3. Moderately Important _____
4. Very Important _____
5. Absolutely Critical _____

j. Integrated Logistics Support

1. Not Important At All _____
2. Somewhat Important _____
3. Moderately Important _____
4. Very Important _____
5. Absolutely Critical _____

k. Program Management Responsibility Transfer

1. Not Important At All _____
2. Somewhat Important _____
3. Moderately Important _____
4. Very Important _____
5. Absolutely Critical _____

18 (continued). In your current position as a Program Manager/Deputy Program Manager, how important is expertise in the following functional areas to your performance as a Program Manager/Deputy Program Manager?

1. Site Activation

- 1. Not Important At All _____
- 2. Somewhat Important _____
- 3. Moderately Important _____
- 4. Very Important _____
- 5. Absolutely Critical _____

m. Depot Activation

- 1. Not Important At All _____
- 2. Somewhat Important _____
- 3. Moderately Important _____
- 4. Very Important _____
- 5. Absolutely Critical _____

n. Maintenance

- 1. Not Important At All _____
- 2. Somewhat Important _____
- 3. Moderately Important _____
- 4. Very Important _____
- 5. Absolutely Critical _____

o. Supply

- 1. Not Important At All _____
- 2. Somewhat Important _____
- 3. Moderately Important _____
- 4. Very Important _____
- 5. Absolutely Critical _____

p. Transportation

- 1. Not Important At All _____
- 2. Somewhat Important _____
- 3. Moderately Important _____
- 4. Very Important _____
- 5. Absolutely Critical _____

18 (continued). In your current position as a Program Manager/Deputy Program Manager, how important is expertise in the following functional areas to your performance as a Program Manager/Deputy Program Manager?

q. Other (please specify)

-
1. Not Important At All _____
 2. Somewhat Important _____
 3. Moderately Important _____
 4. Very Important _____
 5. Absolutely Critical _____

r. Other (please specify)

-
1. Not Important At All _____
 2. Somewhat Important _____
 3. Moderately Important _____
 4. Very Important _____
 5. Absolutely Critical _____

s. Other (please specify)

-
1. Not Important At All _____
 2. Somewhat Important _____
 3. Moderately Important _____
 4. Very Important _____
 5. Absolutely Critical _____

t. Other (please specify)

-
1. Not Important At All _____
 2. Somewhat Important _____
 3. Moderately Important _____
 4. Very Important _____
 5. Absolutely Critical _____

19. In your current position as a Program Manager/Deputy Program Manager, how important is expertise in the following logistics disciplines to your performance as a Program Manager/Deputy Program Manager?

(Only answer for those logistics disciplines in which you have experience. See Question #15.)

a. Retail Logistics

- 1. Not Important At All _____
- 2. Somewhat Important _____
- 3. Moderately Important _____
- 4. Very Important _____
- 5. Absolutely Critical _____

b. Acquisition Logistics

- 1. Not Important At All _____
- 2. Somewhat Important _____
- 3. Moderately Important _____
- 4. Very Important _____
- 5. Absolutely Critical _____

c. International Logistics

- 1. Not Important At All _____
- 2. Somewhat Important _____
- 3. Moderately Important _____
- 4. Very Important _____
- 5. Absolutely Critical _____

d. Wholesale Logistics

- 1. Not Important At All _____
- 2. Somewhat Important _____
- 3. Moderately Important _____
- 4. Very Important _____
- 5. Absolutely Critical _____

e. Combat Logistics

- 1. Not Important At All _____
- 2. Somewhat Important _____
- 3. Moderately Important _____
- 4. Very Important _____
- 5. Absolutely Critical _____

20. How were you selected for your current Program Manager/Deputy Program Manager position? Please explain.

21. At the time you were selected for your current Program Manager/Deputy Program Manager position, did you feel qualified (based on prior experience, education, training)? Please explain in terms of (a) areas in which you felt qualified and (b) areas in which you did not feel qualified.

22. What position did you hold prior to your assignment as a Program Manager/ Deputy Program Manager?

IV. Recommendations

23. Please provide any comments you have concerning the following areas:

a. Recommendations for enhancing the quality of AFLC acquisition program managers.

b. Recommendations for modifying or improving the AFLC acquisition program manager selection process.

c. Recommendations concerning other areas you believe are important to the identification, selection, and training of AFLC acquisition program managers.

Comments:

Appendix B: Interview Cover Letter and Questions

Cover Letter

From: AFIT/LSG (Capt Rupp)

Subj: Scheduling of Interview; AFIT Thesis Research

1. I'm currently a graduate student in the Logistics Management program at the Air Force Institute of Technology. I'm conducting thesis research in the area of "AFLC Acquisition Program Manager Identification, Selection, and Training" and, because of your position in AFLC, I'd like the benefit of your expertise.
2. I realize you are very busy but I would like to schedule a personal interview with you, as your schedule permits, to get your response to the attached interview questions. The interview will take about 25-30 minutes. If possible, I would like to conduct the interview not later than 16 Jul 90.
3. The interview is intended to gather information concerning three areas:
 - a. The need for AFLC acquisition program managers.
 - b. Unique requirements of AFLC acquisition program managers in terms of job experience, education, and formal training.
 - c. Any existing "AFLC acquisition program manager identification and selection process."
4. The thesis project itself is designed to use the interview results, together with a survey of current HQ AFLC acquisition program managers (specifically, those at the LMSC) and other research, to make recommendations pertaining to (a) unique needs of AFLC acquisition program managers, and (b) the AFLC acquisition program manager identification, selection, and training process.
5. If you are unable to fit a personal interview into your schedule, I would appreciate it if you would answer the questions in the space provided, at your convenience. The questions and answers may be returned to Capt Frank Rupp, AFIT/LSG, Wright-Patterson AFB OH 45433.
6. Thank you very much for your time and participation. If you have any questions, please call me at extension 58989 (AFIT Admin Office) or at 429-3040 (home).

FRANK RUPP, Capt USAF
Graduate Student, Logistics Management

Interview Questions

Note: As referred to in these questions, an "AFLC acquisition program manager" is defined as "the one individual who has program management responsibility for the acquisition of new systems or equipment, to include modification programs." For purposes of these questions, this does not include those individuals responsible for the day-to-day management of fielded systems for which Program Management Responsibility Transfer has occurred.

I. The first two questions deal with the need for AFLC acquisition program managers. Given that AFLC has been identified as an acquisition command in DODD 5000.2, and that acquisition is now part of the AFLC mission, there is a need for "AFLC acquisition program managers." Based on this assumption, AFLC acquisition program managers are found in two primary areas:

a. First, they are the program managers assigned to the Logistics Management Systems Center (LMSC) who are responsible for the new systems being brought on line by the LMSC.

b. Second, they are the program managers assigned to the Air Logistics Centers (ALCs) who are responsible for the modification programs and other acquisition programs (such as the 60K Loader program).

1. Do you believe that there exists a need for AFLC acquisition program managers?
If yes, why? If no, why not?

2. If you answered "Yes" to Question #1, do you believe that the areas identified in I.a. and I.b. above have the most critical need for acquisition program managers within AFLC?
If yes, why? If no, why not?

Are there any additional areas within AFLC where you feel acquisition program management expertise is required?
If yes, why?

II. The next five questions deal with any unique requirements of AFLC acquisition program managers in terms of job experience, education, and formal training. Please review the list of "Acquisition and Logistics Functional Areas" found at Enclosure #1.

1. Do you believe that AFLC acquisition program managers have any unique requirements due to the nature of AFLC acquisition programs?

If yes, what are these unique requirements?

2. What previous job experience do you believe AFLC acquisition program managers should have? Please answer in terms of civilians who might serve as acquisition program managers, and in terms of military who might serve as acquisition program managers.

3. Generally speaking, in what areas do you believe AFLC acquisition program managers should receive some formal training? Why?

4. Generally speaking, what level of education do you believe is desirable for AFLC acquisition program managers? Why?

5. Please provide any additional comments relative to job experience, formal training, or education.

III. The next three questions deal with the AFLC acquisition program manager identification and selection process.

1. To the best of your knowledge, does there currently exist an established procedure for identifying and selecting individuals (military or civilian) to fill AFLC acquisition program manager positions?

If yes, please describe the procedure to the best of your ability.

2. What do you believe is the rationale for designating a particular acquisition program manager position as a civilian position as opposed to a military position, or vice versa?

3. Do you have any recommendations for improving the AFLC acquisition program manager identification and selection process?

If yes, what are they?

IV. Other

Please provide any other comments.

Thank you very much for your time and assistance.

Enclosure #1

Acquisition and Logistics Functional Areas

- a. Acquisition Planning
- b. Contracting
- c. Systems Engineering
- d. Software Development
- e. Logistics Support Analysis
- f. Reliability & Maintainability
- g. Test and Evaluation
- h. Budget/Program Control
- i. Configuration Management
- j. Integrated Logistics Support
- k. Program Management Responsibility Transfer
- l. Site Activation
- m. Depot Activation
- n. Maintenance
- o. Supply
- p. Transportation
- q. Other (please specify)

Bibliography

1. Bailey, Lt Col Rosanne. "Air Force Modification Programs-Interaction of Air Force Logistics Command and Air Force Systems Command," Air Force Journal of Logistics, 2: 20-25 (Spring 1989).
2. -----. "Air Force Modification Programs-Interaction of Air Force Logistics Command and Air Force Systems Command," Air Force Journal of Logistics, 1: 7-12, 34 (Winter 1989).
3. Bramlette, Col Larry J. "Preparing and Directing Program Managers," Program Manager, 2: 3-9 (March-April 1987).
4. Briesch, Earl W., Assistant DCS/Materiel Management. Correspondence (Civilian Acquisition Professional Development Forum). HQ AFLC, Wright-Patterson AFB OH, 2 July 1990.
5. Carter, Garry D., Chief, Career Management Division. Correspondence ("Quick Reference" Information on Air Force Career Programs). Air Force Civilian Personnel Management Center, Randolph AFB TX, 10 July 1989.
6. Department of the Air Force. Acquisition Management: Acquisition Program Management. AFR 800-2. Washington: HQ USAF, 25 September 1989.
7. -----. Acquisition Management: Air Force Acquisition System. AFR 800-1. Washington: HQ USAF, 19 December 1989.
8. -----. Air Force Policy Letter for Commanders. Washington: HQ USAF, August 1989.
9. -----. Air Force Policy Letter for Commanders. Washington: HQ USAF, September 1989.
10. -----. Air Force Policy Letter for Commanders. Washington: HQ USAF, October 1989.
11. -----. Air Force Policy Letter for Commanders. Washington: HQ USAF, January 1990.
12. -----. Communications-Computer Systems: Communications-Computer Systems Program Management and Acquisition. AFR 700-4, Volume 1. Washington: HQ USAF, 15 March 1985.

13. ----- Logistics Management: Weapon System Program Management. AFR 400-3. Washington: HQ USAF, 16 June 1989.
14. ----- Officer Personnel: Acquisition Management Professional Development. AFSCR 36-5. Washington: HQ AFSC, 9 September 1988.
15. ----- Operational Requirements: Modification Approval and Management. AFR 57-4. Washington: HQ USAF, 28 August 1987.
16. Department of Defense. Defense Acquisition Program Policies, Guidelines, and Management Responsibilities. DOD Directive 5000.1 (Draft). Washington: Government Printing Office, 25 May 1990.
17. ----- Defense Management Report to the President. Washington: The Secretary of Defense, July 1989.
18. ----- System Acquisition Management Careers. DOD Directive 5000.23. Washington: Government Printing Office, 9 December 1986.
19. Doneghy, Steve. "Career and Personnel Information," Air Force Journal of Logistics, 1: 28 (Winter 1987).
20. Emory, William C. Business Research Methods (Third Edition). Homewood IL: Richard D. Irwin, Incorporated, 1985.
21. Hansen, Gen Alfred G. "Total Quality Management: Powerful Solution to the Logistics Challenge," Program Manager, 1: 9-12 (January-February 1989).
22. HQ AFLC. Master AFLC Acquisition Executive System Program List. Wright-Patterson AFB OH, 31 July 1989.
23. Hull, Steve and Jeff Richmond. "The Growing Importance of Upgrades," Military Logistics Forum, 6: 38-45 (March 1986).
24. Logistics Management Systems Center, Air Force Logistics Command. Staff Directory. Wright-Patterson AFB OH, 15 August 1989.
25. Lohmeyer, Maj Dan. "Acquisition Manager Career Development Initiatives," Program Manager, 4: 21-22 (July-August 1986).

26. Lopez, Capt Kevin W. Impact of AFSC Regulation 36-5 on the 27XX Career Field. MS thesis, AFIT/GSM/LSY/87S-17. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson AFB OH, September 1987.
27. Marquez, Lt Gen Leo. "Developing and Educating Air Force Logisticians," Air Force Journal of Logistics, 4: 2 (Fall 1985).
28. Randolph, Gen Bernard P. "Air Force Acquisition: Toward the Direct Route," Program Manager, 5: 2-7 (September-October 1988).
29. Smith, Capt Scott A. Relative Importance of Selected Subject Areas for Acquisition Project Officer Training. MS thesis, AFIT/GSM/LSY/88S-26. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson AFB OH, September 1988.
30. Taylor, MSgt, Officer Assignments Branch. Telephone Interview. HQ AFLC, WPAFB OH, 12 September 1989.
31. U.S. Congress. Goldwater-Nichols Department of Defense Reorganization Act of 1986. Public Law No. 99-433, 99th Congress, 2nd Session. Washington: Government Printing Office, 1986.

Vita

Captain Francis A. Rupp, Jr. [REDACTED]

[REDACTED] graduated from High Point Senior High School in Beltsville, Maryland in 1972 and attended Frostburg State College in Frostburg, Maryland, graduating with a Bachelor of Science in Management and Economics in May 1976. He received his commission in the USAF upon completion of OTS in September 1979. He was initially stationed at Wright-Patterson AFB, Ohio where he served as the Logistics Support Analysis program manager for the C-17 program until 1981. In late 1981 he was reassigned to the selectively manned DOD Joint Cruise Missiles Project Office in Arlington, Virginia. He was the Ground Launched Cruise Missile training equipment program manager, and the organic engine depot activation manager for all platforms. He returned to Wright-Patterson AFB, Ohio in October 1987 where he acted as an acquisition logistics program staff officer until entering the School of Systems and Logistics, Air Force Institute of Technology, in May 1988.

[REDACTED] [REDACTED]

| REPORT DOCUMENTATION PAGE | | | Form Approved OMB No. 0704-0188 | |
|--|---|--|------------------------------------|--|
| Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. | | | | |
| 1. AGENCY USE ONLY (Leave blank) | 2. REPORT DATE September 1990 | 3. REPORT TYPE AND DATES COVERED Master's Thesis | | |
| 4. TITLE AND SUBTITLE IDENTIFICATION, SELECTION, AND TRAINING OF HEADQUARTERS AIR FORCE LOGISTICS COMMAND ACQUISITION PROGRAM MANAGERS | | 5. FUNDING NUMBERS | | |
| 6. AUTHOR(S) Francis A. Rupp, Jr., Captain, USAF | | | | |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Air Force Institute of Technology WPAFB OH 45433-6583 | | 8. PERFORMING ORGANIZATION REPORT NUMBER AFIT/GLM/LSY/90S-47 | | |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) | | 10. SPONSORING/MONITORING AGENCY REPORT NUMBER | | |
| 11. SUPPLEMENTARY NOTES | | | | |
| 12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution unlimited | | 12b. DISTRIBUTION CODE | | |
| 13. ABSTRACT (Maximum 200 words) This study investigated the identification, selection, and training process for Headquarters Air Force Logistics Command (HQ AFLC) acquisition program managers. The acquisition program managers of interest were located in HQ AFLC's Logistics Management Systems Center (LMSC). A literature search revealed these program managers are subject to several program management philosophies and policies. LMSC program managers were surveyed concerning their formal education, training, and job experience, and were asked about the perceived importance of expertise in certain program management functional areas. LMSC program managers were also asked about the current LMSC program manager identification and selection process. Several senior AFLC leaders were then interviewed and asked about the need for AFLC acquisition program managers; formal education, training, and job experience requirements for these program managers; and the program manager identification and selection process. The present process appears to be working well, but there is a need to provide formal training prior to program managers assuming their program management responsibilities. Acquisition professional career development initiatives resulting from the July 1989 Defense Management Review should improve the identification, selection, and training process. <i>Key words:</i> | | | | |
| 14. SUBJECT TERMS acquisition, program manager, systems management, training, acquisition professional, Air Force Logistics Command, logistics, <i>LMSCS-</i> | | 15. NUMBER OF PAGES 166 | | |
| | | 16. PRICE CODE | | |
| 17. SECURITY CLASSIFICATION OF REPORT Unclassified | 18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified | 19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified | 20. LIMITATION OF ABSTRACT III | |